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As filed with the Securities and Exchange Commission on June 20, 2014.

Registration No. 333-

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

ATARA BIOTHERAPEUTICS, INC.
(Exact name of Registrant as specified in its charter)

Delaware	2836	46-0920988
(State or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification Number)

3260 Bayshore Boulevard
Brisbane, CA 94005
(415) 287-2410
(Address, including zip code and telephone number, of Registrant's principal executive offices)

Isaac E. Ciechanover, M.D.
Chief Executive Officer
Atara Biotherapeutics, Inc.
3260 Bayshore Boulevard
Brisbane, CA 94005
(415) 287-2410
(Name, address, including zip code and telephone number, including area code, of agent for service)

Copies to:

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1600 El Camino Real
Menlo Park, California 94025
(650) 752-2000

Approximate date of commencement of proposed sale to the public: As soon as practicable after the effective date of this registration statement.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act, check the following box. ☐

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☐	Accelerated filer ☐
Non-accelerated filer ☑ (Do not check if a smaller reporting company)	Smaller reporting company ☐

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Proposed Maximum Aggregate Offering Price(1)(2)	Amount of Registration Fee
Common Stock, $0.0001 par value per share	$50,000,000	$6,440

(1) Estimated solely for the purpose of calculating the amount of the registration fee pursuant to Rule 457(o) under the Securities Act of 1933, as amended.

(2) Includes offering price of any additional shares that the underwriters have the option to purchase.

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until the Registration Statement shall become effective on such date as the Securities and Exchange Commission acting pursuant to said Section 8(a), may determine.

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The information in this preliminary prospectus is not complete and may be changed. These securities may not be sold until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell nor does it seek an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

Subject To Completion. Dated June 20, 2014.

Shares

Common Stock

This is an initial public offering of shares of common stock of Atara Biotherapeutics, Inc.

We are selling shares of our common stock in this offering.

Prior to this offering, there has been no public market for our common stock. It is currently estimated that the initial public offering price per share will be between $ and $. We intend to list our common stock on The Nasdaq Global Market under the symbol “ATRA.”

We are an “emerging growth company” under applicable Securities and Exchange Commission rules and will be subject to reduced public company reporting requirements.

Investing in our common stock involves a high degree of risk. See Risk Factors” on page 10 to read about factors you should consider before buying shares of our common stock.

Neither the Securities and Exchange Commission nor any other regulatory body has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus. Any representation to the contrary is a criminal offense.

	Per Share	Total
Initial public offering price	$	$
Underwriting discounts and commissions(1)	$	$
Proceeds to us, before expenses	$	$

(1) We refer you to “Underwriting” beginning on page 138 for additional information regarding total underwriting compensation.

We have granted the underwriters an option to purchase up to an additional shares at the initial public offering price less the underwriting discount.

The underwriters expect to deliver the shares against payment in New York, New York on , 2014.

Goldman, Sachs & Co. **Citigroup**

Jefferies

Prospectus dated , 2014

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We have not authorized anyone to provide you with any information or to make any representation, other than those contained in this prospectus or any free writing prospectus we have prepared. We take no responsibility for, and provide no assurance as to the reliability of, any other information that others may give you. This prospectus is an offer to sell only the shares offered hereby, but only in circumstances and in jurisdictions where it is lawful to so do. The information contained in this prospectus is accurate only as of its date, regardless of the time of delivery of this prospectus or of any sale of our common stock.

Neither we nor any of the underwriters have done anything that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than the United States. You are required to inform yourself about, and to observe any restrictions relating to, this offering and the distribution of this prospectus.

PROSPECTUS SUMMARY

This summary highlights information contained elsewhere in this prospectus and does not contain all of the information that you should consider in making your investment decision. Before investing in our common stock, you should read the entire prospectus carefully, including the sections titled "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our combined and consolidated financial statements and related notes included elsewhere in this prospectus. Unless the context suggests otherwise, references in this prospectus to "Atara," "Atara Biotherapeutics," "we," "us" and "our" refer to Atara Biotherapeutics, Inc. and, where appropriate, its subsidiaries.

Atara Biotherapeutics, Inc.

We are a clinical-stage biopharmaceutical company focused on developing novel therapeutics for serious unmet medical needs, with an initial focus on muscle wasting conditions and oncology. Our product candidates are biologics targeting myostatin and activin, members of the Transforming Growth Factor-Beta, or TGF-ß, protein superfamily, which play roles in the growth and maintenance of muscle and many other body tissues. Our lead product candidate, PINTA 745, is in a Phase 2 clinical trial for protein-energy wasting, a condition affecting many end-stage renal disease patients. Our second product candidate is STM 434, and we expect to commence a Phase 1 clinical study of STM 434 for ovarian cancer and other solid tumors in the second half of 2014. We have five additional molecules in preclinical development. We hold worldwide rights to our entire portfolio, except for PINTA 745 in Japan. We intend to license or acquire additional product candidates to develop and commercialize.

Our Novel Approach to Treat Protein Energy Wasting in ESRD Patients: PINTA 745

Our lead product candidate, PINTA 745, is a peptibody that binds to and inhibits myostatin, a protein that down regulates muscle growth and maintenance. In a Phase 1 study, PINTA 745 was found to increase muscle mass compared to placebo after one month of weekly dosing, an increase that was statistically significant, indicating that it is more likely than not that the benefit observed in the study was due to drug treatment rather than chance. We are enrolling a US-based Phase 2 clinical trial to further establish the role of PINTA 745 in building muscle mass, as well as to collect data from corresponding functional muscle tests. This trial is being conducted in patients with end-stage renal disease, or ESRD, who are also suffering from protein-energy wasting, or PEW—a condition characterized by muscle wasting, inflammation and malnutrition.

PEW is a major complication of ESRD. A recent study we completed with DaVita Clinical Research, a division of DaVita Healthcare Partners Inc., concluded that more than half of DaVita's dialysis population meet the conditions for PEW and, in comparison to the rest of the group, exhibit worse morbidity and mortality. Based on data from the US Renal Data System, we estimate that the current total US dialysis population, excluding patients who had successfully received kidney transplants, is 460,000 patients. Of these patients, we estimate that approximately 250,000 patients suffer from PEW. Worldwide, we believe that more than 800,000 patients suffer from PEW.

There is currently no approved therapy for patients suffering from PEW. We believe PINTA 745 is the only potential therapeutic in clinical development to treat this patient population.

In clinical studies conducted of PINTA 745 in men with prostate cancer and in mouse studies in a model of chronic kidney disease, or CKD, conducted with PINTA 745/s, a version of PINTA 745 that was customized for use in mice, several properties well suited for a potential therapeutic for PEW were observed, including:

- ***Reversing muscle loss*** — PINTA 745 not only stopped muscle wasting, it significantly increased muscle mass after four weeks of treatment.
- ***Dosing control*** — PINTA 745 has a human circulating half-life of four days, which affords physicians a significant level of dosing control while conveniently aligning with dialysis treatment schedules. We believe that this is particularly important in ESRD patients given changes in patient weight.
- ***Anti-inflammatory properties*** — In an animal model of renal disease, PINTA 745/s exhibited significant anti-inflammatory properties, a factor that we believe will be important due to the critical role that inflammation plays in PEW and the overall declining health of ESRD patients.

Our ongoing US-based Phase 2 trial is a 40-patient, randomized, double-blind, placebo-controlled trial that, in addition to providing us with assessments of change in muscle mass and muscle strength, will give us insight into potential additional markets for PINTA 745. These could include: orthopedic indications; inflammation and inflammatory diseases; age-related sarcopenia (loss of muscle); and cancer cachexia (a syndrome of progressive weight loss). In each of these conditions, muscle loss prevention, muscle growth and reduction in inflammation resulting from treatment with PINTA 745 could lead to improved physical function and therefore to better outcomes. We expect to release initial data from this Phase 2 clinical trial in the second half of 2015.

Our Novel Approach to Treat Ovarian Cancer: STM 434

Our second product candidate, STM 434, has an open investigational new drug application, or IND, and we expect to commence a Phase 1 clinical study of up to 66 patients with ovarian cancer and other solid tumors in the second half of 2014. STM 434 is a soluble ActR2B receptor that binds Activin A. Activin has been shown to be involved in the growth and proliferation of ovarian cancer and other tumors, with published evidence of its role at both the genetic (messenger RNA) and protein levels. Activin expression is one of a few biomarkers associated with larger tumor volume and poorer outcomes, including shortened survival in a variety of tumors including ovarian tumors. Published data has shown that serum Activin A levels in ovarian cancer subjects are elevated in relation to levels in normal subjects. We plan to test the potential use of Activin A as a biomarker in our Phase 1 clinical study.

Ovarian cancer is the fifth leading cause of cancer death in women in the United States. According to the National Cancer Institute, there were an estimated 22,240 new ovarian cancer cases and 14,030 ovarian cancer deaths in the United States in 2013. Surgery and cytotoxic chemotherapies are widely used to treat ovarian cancer; however, the outcomes have changed little in 40 years. The proportion of all ovarian cancer patients surviving five years after diagnosis was only 44% based on the National Cancer Institute SEER database for women diagnosed from 2003 to 2009.

Some subtypes of ovarian tumors respond even more poorly to treatment than others and represent opportunities where drug development could be accelerated. In particular, clear cell and granulosa cell tumors are considered resistant to chemotherapy. Our preclinical experiments in animal models of these subtypes indicate that binding Activin A with a soluble receptor could significantly reduce tumor proliferation, reduce tumor volume and potentially increase survival. We believe that novel therapies for clear cell and granulosa cell tumors could qualify for US Food and Drug Administration, or FDA, breakthrough designation, an FDA process designed to accelerate the

development and review of drugs intended to treat a serious condition when early studies show that the drug may be substantially better than current treatment, and therefore such novel therapies could achieve expedited regulatory approval. Based on its mechanism of action, we also believe that STM 434 has the potential to be the first product to target tumor growth and proliferation through the inhibition of Activin A.

Both PINTA 745 and STM 434 are novel molecules with well-characterized mechanisms of action. They were developed initially, along with our five other in-licensed programs, at Amgen Inc., or Amgen. Taken together, we believe these unique product candidates constitute a pipeline of biologics that have benefited from years of investment, resulting in a large patent portfolio, broad preclinical testing and, in the case of PINTA 745, promising clinical results. We are evaluating the remaining five molecules to determine the best path forward. Where appropriate, we intend to conduct preclinical studies and file INDs with the FDA for these candidates.

Our Management Team

We believe our management team has the breadth and depth of experience to execute our business model. Our management team includes:

- ***Isaac E. Ciechanover, M.D.***, our President and Chief Executive Officer, was Executive Director for Business Development at Celgene Corporation, or Celgene. At Celgene, he led the company's venture capital efforts and led licensing and acquisition activities with an aggregate transaction value of more than $6.7 billion. Prior to founding Atara, Dr. Ciechanover was a Partner with Kleiner Perkins Caufield & Byers, a leading venture capital firm.
- ***Christopher Haqq, M.D., Ph.D.***, our Chief Medical Officer, was Vice President for Clinical Research and Development at Cougar Biotechnology, Inc., or Cougar Biotechnology, which was acquired by Johnson & Johnson in 2009. At Cougar Biotechnology, he was the lead clinician for a pivotal prostate cancer study leading to market approval for Zytiga (abiraterone acetate). He has served as medical monitor for more than ten clinical trials and served as an attending oncology physician and director of a translational laboratory at the University of California, San Francisco.
- ***Mitchall G. Clark***, our Chief Regulatory and Quality Officer, was previously Senior Vice President of Global Regulatory Affairs at Abraxis Bioscience, Inc., or Abraxis, where he submitted and managed five INDs for oncology and cardiovascular drugs including Abraxane.
- ***Gad Soffer***, our Chief Operating Officer, previously held various roles at Celgene, including most recently Global Project Leader for Abraxane following Celgene's acquisition of Abraxis, where he led successful regulatory submissions for pancreatic cancer and non-small cell lung cancer.
- ***John F. McGrath, Jr.***, our Chief Financial Officer, was previously Executive in Residence and Operating Partner at Kleiner Perkins Caufield & Byers. Prior to that time, he served as Vice President and Chief Financial Officer for Network Equipment Technologies, Inc., a publicly traded company.

Our Strategy

Our business model is to license or acquire and develop novel molecules for serious unmet medical needs with validated molecular targets and established proof of concept. Based on the properties of each of these molecules, including efficacy, safety, pharmacokinetics, affinity and other characteristics, we match each program to clinical indications that we believe maximize its therapeutic potential and may result in an expedited path to market.

Our goal is to be a leader in the development and commercialization of novel therapeutics for serious unmet medical needs. We are initially focused on muscle wasting conditions and oncology. Key components to achieve this objective include:

- rapidly advance PINTA 745 in clinical development, initially for PEW;
- obtain clinical proof of concept for STM 434, initially in ovarian cancer and other solid tumors;
- evaluate our other product candidates and advance them into the clinic as appropriate;
- leverage our relationships and experience to in-license or acquire additional molecules for development; and
- retain worldwide rights for product candidates.

Risks Associated with Our Business

Our business is subject to numerous risks and uncertainties, including those highlighted in the section titled “Risk Factors” immediately following this prospectus summary. Some of these risks are:

- we have a limited operating history on which to assess our business, have generated no revenues, have incurred significant losses since our inception and anticipate that we will continue to incur losses for the foreseeable future;
- we expect that we will need to raise additional financing to achieve our product candidate development, regulatory approval and commercialization goals;
- we are very early in our product candidate development efforts and are heavily dependent on the regulatory approval and successful commercialization of our two lead product candidates;
- we rely on third parties to conduct our preclinical studies and clinical trials;
- we have no experience manufacturing our product candidates on a large clinical or commercial scale and are dependent on third parties to conduct such manufacturing;
- our commercial success depends on attaining significant market acceptance of our product candidates, if approved, among physicians, patients, healthcare payors and major operators of dialysis and cancer centers;
- if we are unable to obtain and maintain sufficient intellectual property protection for our product candidates, we may not be able to compete effectively; and
- our future success depends in part upon our ability to retain members of our executive management team and to attract, retain and motivate other qualified personnel.

Corporate Information

We were incorporated in August 2012 in Delaware. Our company was originally formed as a management company with the sole purpose of providing management, administrative and financial services for three related companies, all of which were also incorporated in August 2012: Nina Biotherapeutics, Inc., or Nina; Pinta Biotherapeutics, Inc., or Pinta; and Santa Maria Biotherapeutics, Inc., or Santa Maria. On March 31, 2014, we implemented a recapitalization in which (a) all the outstanding shares of capital stock of Atara were cancelled and forfeited by existing stockholders and (b) we issued shares of our common and convertible preferred stock to the existing stockholders of Nina, Pinta and Santa Maria in the same proportions and with the same rights and privileges as the outstanding capital stock of Nina, Pinta and Santa Maria, on a collective nine-for-one basis. We refer to

this transaction as our recapitalization. Because we have determined that Atara, Nina, Pinta and Santa Maria were under common management and common ownership since inception, our financial statements for all periods and as of all dates prior to the recapitalization are presented on a combined basis. Beginning March 31, 2014, the time of recapitalization, our financial statements are presented on a consolidated basis. These combined and consolidated financial statements include the accounts of the four individual companies since inception, with intercompany transactions eliminated.

Our principal executive offices are located at 3260 Bayshore Boulevard, Brisbane, California and our telephone number is (415) 287-2410. Our website address is www.atarabio.com. Information contained on or accessible through our website is not a part of this prospectus and should not be relied upon in determining whether to make an investment decision.

Atara, Atara Biotherapeutics, the Atara logo and other trade names, trademarks or service marks of Atara appearing in this prospectus are the property of Atara. Trade names, trademarks and service marks of other companies appearing in this prospectus are the property of their respective holders.

We are an “emerging growth company” as defined in the Jumpstart Our Business Startups Act, or the JOBS Act, and therefore we may take advantage of certain exemptions from various public company reporting requirements, including not being required to have our internal control over financial reporting audited by our independent registered public accounting firm pursuant to Section 404 of the Sarbanes-Oxley Act of 2002, or the Sarbanes-Oxley Act, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and any golden parachute payments. We may take advantage of these exemptions until we are no longer an “emerging growth company.” We will remain an “emerging growth company” for up to five years. We will cease to be an “emerging growth company” upon the earliest of: (1) the last day of the fiscal year following the fifth anniversary of this offering, (2) the last day of the first fiscal year in which our annual gross revenues are $1 billion or more, (3) the date on which we have, during the previous rolling three-year period, issued more than $1 billion in non-convertible debt securities, and (4) the date on which we are deemed to be a “large accelerated filer” as defined in the Securities Exchange Act of 1934, as amended, or the Exchange Act. We are choosing to irrevocably opt out of the extended transition periods available under the JOBS Act for complying with new or revised accounting standards.

THE OFFERING

Common stock offered by Atara	Shares
Common stock to be outstanding after this offering	Shares
Option to purchase additional shares of common stock	Shares
Use of proceeds	We estimate that our net proceeds from this offering will be approximately $ million, or approximately $ million if the underwriters' option to purchase additional shares of our common stock is exercised in full, based on an assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, and after deducting estimated underwriting discounts and commissions and estimated offering expenses. We intend to use the net proceeds from this offering primarily (1) to continue clinical development and manufacturing of PINTA 745, (2) to continue preclinical and clinical development and manufacturing of STM 434, (3) to continue to advance and expand our preclinical research pipeline and (4) for working capital and other general corporate purposes, including funding the costs of operating as a public company and potentially including acquiring or licensing products, businesses or technologies, although we have no present commitments for any such acquisitions or licenses. See "Use of Proceeds" for additional information.
Risk factors	See "Risk Factors" beginning on page 10 and the other information included in this prospectus for a discussion of factors you should carefully consider before deciding to invest in our common stock.
Proposed Nasdaq Global Market symbol	"ATRA"

The number of shares of common stock to be outstanding after this offering is based on 18,724,086 shares of our common stock (including preferred stock on an as-converted basis) outstanding as of March 31, 2014, on a pro forma basis giving effect to the recapitalization, and excludes the following:

- 1,151,770 shares of common stock issuable upon settlement of restricted stock units, or RSUs, outstanding as of March 31, 2014 pursuant to the equity incentive plans adopted by Nina, Pinta and Santa Maria, which we have assumed and refer to as the 2012 Plans;
- shares of common stock issuable upon settlement of RSUs issued after March 31, 2014 under our 2014 Equity Incentive Plan, or 2014 Plan;

- shares of common stock to be reserved for future issuance under our 2014 Plan, as well as any automatic increases in the number of shares of common stock reserved for future issuance under this benefit plan;
- shares of common stock to be reserved for issuance under our 2014 Employee Stock Purchase Plan, or our ESPP, to be effective in connection with this offering, as well as any automatic increases in the number of shares of common stock reserved for future issuance under this benefit plan.

In addition, unless we specifically state otherwise, all information in this prospectus assumes:

- the completion of our recapitalization;
- the automatic conversion of all outstanding shares of our preferred stock as of March 31, 2014 into an aggregate of 15,988,087 shares of common stock immediately prior to the closing of this offering;
- the filing and effectiveness of our amended and restated certificate of incorporation in Delaware and the adoption of our amended and restated bylaws, each of which will occur upon the completion of this offering;
- no exercise of the underwriters' option to purchase up to an additional shares of common stock.

SUMMARY COMBINED AND CONSOLIDATED FINANCIAL DATA

The following tables summarize our combined and consolidated financial data. You should read this summary combined and consolidated financial data together with the sections titled "Selected Combined and Consolidated Financial Data" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" as well as our combined and consolidated financial statements and related notes included elsewhere in this prospectus.

We have derived the summary combined statement of operations data for the period from August 22, 2012 (inception) to December 31, 2012 and the year ended December 31, 2013 from our audited combined financial statements included elsewhere in this prospectus. We have derived the summary combined and consolidated statements of operations data for the three months ended March 31, 2013 and 2014 and the period from August 22, 2012 (inception) to March 31, 2014 and our balance sheet data as of March 31, 2014 from our unaudited interim combined and consolidated financial statements included elsewhere in this prospectus. The unaudited interim combined and consolidated financial statements have been prepared on the same basis as the audited combined financial statements and reflect, in the opinion of management, all adjustments of a normal, recurring nature that are necessary for a fair presentation of the unaudited interim combined and consolidated financial statements. Our historical results are not necessarily indicative of the results that should be expected in the future, and our interim results are not necessarily indicative of the results that should be expected for the full year or any other period.

	Period from August 22, 2012 (Inception) to December 31, 2012	Year ended December 31, 2013	Three months ended March 31, (unaudited)		Period from August 22, 2012 (Inception) to March 31, 2014 (unaudited)
			2013	2014	
	(in thousands, except share and per share information)				
Combined and Consolidated Statements of Operations and Comprehensive Loss Data:					
Expenses:					
Research and development	$ 241	$ 4,306	$ 354	$ 2,981	$ 7,528
Research and development costs paid to Amgen	—	553	—	—	553
In-process research and development acquired from Amgen	3,018	—	—	—	3,018
General and administrative	834	3,756	932	4,096	8,686
Total expense	4,093	8,615	1,286	7,077	19,785
Loss from operations	(4,093)	(8,615)	(1,286)	(7,077)	(19,785)
Interest income	—	12	2	6	18
Loss before provision for income taxes	(4,093)	(8,603)	(1,284)	(7,071)	(19,767)
Provision (benefit) for income taxes	17	170	14	(22)	165
Net loss incurred in the development stage	$ (4,110)	$ (8,773)	$(1,298)	$ (7,049)	$ (19,932)
Other comprehensive loss, net of tax					
Unrealized losses on investments	—	—	—	(11)	(11)
Other comprehensive loss	—	—	—	(11)	(11)
Comprehensive loss incurred in the development stage	$ (4,110)	$ (8,773)	$(1,298)	$(7,060)	$ (19,943)

	Period from August 22, 2012 (Inception) to December 31, 2012	Year ended December 31, 2013	Three months ended March 31, (unaudited)	
			2013	2014
	(in thousands, except share and per share information)			
Basic and diluted net loss per common share	$ (4.31)	$ (6.99)	$ (1.20)	$ (4.29)
Weighted-average common shares outstanding used to compute basic and diluted net loss per common share	953,283	1,255,573	1,079,096	1,642,312

	As of March 31, 2014 (unaudited)		
	Actual	Pro Forma[1]	Pro Forma As Adjusted[2][3]
	(in thousands)		
Consolidated Balance Sheets Data:			
Cash and cash equivalents	$ 39,754	$ 40,053	$
Short-term available-for-sale investments	22,277	22,277	
Working capital	59,503	59,802	
Total assets	62,866	63,165	
Convertible preferred stock	74,572	—	
Accumulated deficit	(19,932)	(19,932)	
Total stockholders' (deficit) equity	(14,704)		

(1) The pro forma column reflects the automatic conversion of all outstanding shares of our preferred stock into shares of our common stock immediately prior to the closing of this offering, giving effect to our recapitalization and the repayment of notes receivable from a stockholder.

(2) The pro forma as adjusted column further reflects the sale of shares of our common stock in this offering at an assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses.

(3) A $1.00 increase (decrease) in the assumed initial public offering price of $ per share would increase (decrease) the amount of cash and cash equivalents, working capital, total assets and total stockholders' equity by approximately $ million, assuming the number of shares offered, as set forth on the cover page of this prospectus, remains the same and after deducting estimated underwriting discounts and commissions. Similarly, each increase (decrease) of 1,000,000 shares in the number of shares of our common stock offered would increase (decrease) the amount of cash and cash equivalents, working capital, total assets and total stockholders' equity by approximately $ million, assuming that the assumed initial public offering price remains the same, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable. The pro forma as adjusted information discussed above is illustrative only and will be adjusted based on the actual initial public offering price and the other terms of this offering determined at pricing.

RISK FACTORS

Investing in our common stock involves a high degree of risk. You should carefully consider the following risks and all of the other information contained in this prospectus, including our combined and consolidated financial statements and related notes, before investing in our common stock. While we believe that the risks and uncertainties described below are the material risks currently facing us, additional risks that we do not yet know of or that we currently think are immaterial may also arise and materially affect our business. If any of the following risks materialize, our business, financial condition and results of operations could be materially and adversely affected. In that case, the trading price of our common stock could decline, and you may lose some or all of your investment.

Risks Related to Our Financial Results and Capital Needs

We have incurred substantial losses since our inception and anticipate that we will continue to incur substantial and increasing losses for the foreseeable future.

We are a clinical-stage biopharmaceutical company. Investment in biopharmaceutical product development is highly speculative because it entails substantial upfront capital expenditures and significant risk that a product candidate will fail to prove effective, gain regulatory approval or become commercially viable. We do not have any products approved by regulatory authorities and have not generated any revenues from product sales to date, and have incurred significant research, development and other expenses related to our ongoing operations and expect to continue to incur such expenses. As a result, we have not been profitable and have incurred significant operating losses in every reporting period since our inception. For the year ended December 31, 2013 and three months ended March 31, 2014, we reported a net loss of $8.8 million and $7.0 million, respectively, and we had an accumulated deficit of $19.9 million at March 31, 2014.

We do not expect to generate revenues for many years, if at all. We expect to continue to incur significant expenses and operating losses for the foreseeable future. We anticipate these losses to increase as we continue to research, develop and seek regulatory approvals for our product candidates and any additional product candidates we may acquire, and potentially begin to commercialize product candidates that may achieve regulatory approval. We may encounter unforeseen expenses, difficulties, complications, delays and other unknown factors that may adversely affect our business. The size of our future net losses will depend, in part, on the rate of future growth of our expenses and our ability to generate revenues. If any of our product candidates fail in clinical trials or do not gain regulatory approval, or if approved, fail to achieve market acceptance, we may never become profitable. Even if we achieve profitability in the future, we may not be able to sustain profitability in subsequent periods. We anticipate that our expenses will increase in the future as we continue to invest in research and development of our existing product candidates, investigate and potentially acquire new product candidates and expand our manufacturing and commercialization activities.

We have a limited operating history, which may make it difficult for you to evaluate the success of our business to date and to assess our future viability.

Our company was formed in August 2012. Our operations to date have been limited to organizing and staffing our company, acquiring product and technology rights and conducting product development activities for our product candidates. We have not yet demonstrated our ability to successfully complete any Phase 2 or Phase 3 clinical trials, obtain regulatory approval, manufacture a commercial scale product or arrange for a third party to do so on our behalf, or conduct sales and marketing activities necessary for successful commercialization for any of our product candidates. Consequently, any predictions about our future success, performance or viability may not be as accurate as they could be if we had a longer operating history or approved products on the market.

In addition, as a young business, we may encounter unforeseen expenses, difficulties, complications, delays and other known and unknown factors. We will need to transition at some point from a company with a research and development focus to a company capable of supporting commercial activities. We may not be successful in such a transition. We expect our financial condition and operating results to continue to fluctuate significantly from quarter to quarter and year to year due to a variety of factors, many of which are beyond our control. Accordingly, you should not rely upon the results of any quarterly or annual periods as indications of future operating performance.

We currently have no source of revenues. We may never generate revenues or achieve profitability.

To date, we have not generated any revenues from product sales or otherwise. Our ability to generate revenues from product sales and achieve profitability will depend on our ability to commercialize products, including any of our current product candidates, and other product candidates that we may develop, in-license or acquire in the future. Even if we are able to successfully achieve regulatory approval for these product candidates, we do not know when we will generate revenues, if at all. Our ability to generate revenues also depends on a number of additional factors, including our ability to:

- successfully complete development activities, including the necessary clinical trials;
- complete and submit biologics license applications, or BLAs, to the FDA and obtain US regulatory approval for indications for which there is a commercial market;
- complete and submit applications to, and obtain regulatory approval from, foreign regulatory authorities in Europe, Asia and other jurisdictions;
- obtain coverage and adequate reimbursement from third parties, including government and private payors;
- set a commercially viable price for our products;
- establish and maintain supply and manufacturing relationships with reliable third parties and ensure adequate, legally compliant manufacturing of bulk drug substances and drug products to maintain that supply;
- obtain commercial quantities of our products at acceptable cost levels;
- achieve market acceptance of our products, if any;
- attract, hire and retain qualified personnel;
- protect our rights in our intellectual property portfolio;
- develop a commercial organization capable of sales, marketing and distribution for any products we intend to sell ourselves in the markets in which we choose to commercialize on our own; and
- find suitable distribution partners to help us market, sell and distribute our approved products in other markets.

In addition, because of the numerous risks and uncertainties associated with product development, including that our product candidates may not advance through development or achieve the endpoints of applicable clinical trials, we are unable to predict the timing or amount of increased expenses, or when or if we will be able to achieve or maintain profitability. Even if we are able to complete the development and regulatory process for any product candidates, we anticipate incurring significant costs to commercialize these products.

Even if we are able to generate revenues from the sale of our products, we may not become profitable and may need to obtain additional funding to continue operations. If we fail to become profitable or are unable to sustain profitability on a continuing basis, then we may be unable to continue our operations at planned levels and may be forced to reduce our operations.

We will require substantial additional financing to achieve our goals, and a failure to obtain this necessary capital when needed could force us to delay, limit, reduce or terminate our product development or commercialization efforts.

As of March 31, 2014, our cash and cash equivalents and short-term investments were $62.0 million. We expect to expend substantial resources for the foreseeable future continuing clinical development and manufacturing of PINTA 745, preclinical and clinical development and manufacturing of STM 434 and advancing and expanding our preclinical research pipeline. These expenditures will include costs associated with research and development, potentially acquiring new product candidates, conducting preclinical studies and clinical trials, potentially obtaining regulatory approvals and manufacturing products, as well as marketing and selling products approved for sale, if any. Under the terms of our license agreements with Amgen, we are obligated to make additional milestone payments to Amgen of up to $86.0 million upon the achievement of certain development and regulatory approval milestones. In addition, other unanticipated costs may arise. Because the design and outcome of our planned and anticipated clinical trials is highly uncertain, we cannot reasonably estimate the actual amounts necessary to successfully complete the development and commercialization of our product candidates.

Our future capital requirements depend on many factors, including:

- the scope, progress, results and costs of researching and developing our other product candidates, and conducting preclinical studies and clinical trials;
- the timing of, and the costs involved in, obtaining regulatory approvals for our other product candidates if clinical trials are successful;
- the cost of commercialization activities for our product candidates, if any of these product candidates is approved for sale, including marketing, sales and distribution costs;
- the cost of manufacturing our product candidates for clinical trials in preparation for regulatory approval and in preparation for commercialization;
- our ability to establish and maintain strategic licensing or other arrangements and the financial terms of such agreements;
- the costs involved in preparing, filing, prosecuting, maintaining, expanding, defending and enforcing patent claims, including litigation costs and the outcome of such litigation;
- the timing, receipt and amount of sales of, or royalties on, our future products, if any; and
- the emergence of competing technologies or other adverse market developments.

Based on our current operating plan, we believe that the net proceeds we receive from this offering, together with our existing cash and cash equivalents and short-term investments, will be sufficient to fund our projected operating requirements through the end of 2016. However, our operating plan may change as a result of many factors currently unknown to us, and we may need additional funds sooner than planned. In addition, we may seek additional capital due to favorable market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. We do not have any committed external source of funds. Additional funds may not be available when we need them on terms that are acceptable to us, or at all. If adequate funds are not available to us on a timely basis, we may be required to delay, limit, reduce or terminate preclinical studies, clinical trials or other development activities for one or more of our product candidates or delay, limit, reduce or terminate our establishment of sales and marketing capabilities or other activities that may be necessary to commercialize our product candidates.

Raising additional capital may cause dilution to our existing stockholders, restrict our operations or require us to relinquish rights to our product candidates on unfavorable terms to us.

We may seek additional capital through a variety of means, including through private and public equity offerings and debt financings. To the extent that we raise additional capital through the sale of equity or convertible debt securities, your ownership interest will be diluted, and the terms may include liquidation or other preferences that adversely affect your rights as a stockholder. Debt financing, if available, may involve agreements that include covenants limiting or restricting our ability to take certain actions, such as incurring additional debt, making capital expenditures or declaring dividends. If we raise additional funds from third parties, we may have to relinquish valuable rights to our technologies or product candidates, or grant licenses on terms that are not favorable to us. If we are unable to raise additional funds through equity or debt financing when needed, we may be required to delay, limit, reduce or terminate our product development or commercialization efforts for our product candidates, or grant to others the rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves.

Our ability to use our net operating loss carryforwards and certain other tax attributes may be limited.

We have incurred substantial losses during our history and do not expect to become profitable in the near future and we may never achieve profitability. To the extent that we continue to generate taxable losses, unused losses will carry forward to offset future taxable income, if any, until such unused losses expire. At December 31, 2012 and 2013, we had federal and state net operating loss carryforwards of approximately $0.8 million and $7.2 million, respectively, which, if not utilized, begin to expire in various amounts beginning in the year 2032. Under Section 382 of the Internal Revenue Code of 1986, as amended, or the Code, if over a rolling three-year period, the cumulative change in our ownership exceeds 50% (as determined under applicable Treasury regulations), our ability to utilize our US federal net operating loss, or NOL, carryforwards and other pre-change tax attributes (such as research tax credits) to offset future taxable income or taxes may be limited. We have experienced at least one ownership change since inception and our utilization of NOL carryforwards will therefore be subject to annual limitation. Our ability to utilize our NOL carryforwards may be further limited as a result of subsequent ownership changes, including potential changes in connection with our proposed initial public offering. Similar rules may apply under state tax laws. Further, other provisions of the Code may limit our ability to utilize NOLs incurred before the recapitalization to offset income or gain realized after the recapitalization, unless such income or gain is realized by the same entity that originally incurred such NOLs. In addition, at the state level, there may be periods during which the use of NOLs is suspended or otherwise limited. We have not yet determined the amount of the cumulative change in our ownership resulting from this offering or any resulting tax loss limitations. Such limitations could result in the expiration of our carryforwards before they can be utilized and, if we are profitable, our future cash flows could be adversely affected due to our increased tax liability.

Risks Related to the Development of Our Product Candidates

We are very early in our development efforts and have only two product candidates in clinical development. All of our other product candidates are still in preclinical development. If we or our collaborators are unable to successfully develop and commercialize product candidates or experience significant delays in doing so, our business will be materially harmed.

We are very early in our development efforts and have only two product candidates, PINTA 745 and STM 434, in clinical development. All of our other product candidates are currently in preclinical development. We have invested substantially all of our efforts and financial resources in identifying and developing potential product candidates and conducting preclinical studies, clinical trials and manufacturing activities. Our ability to generate revenues, which we do not expect will occur for many years, if ever, will depend heavily on the successful development and eventual commercialization of

our product candidates. The success of our product candidates will depend on several factors, including the following:

- completion of preclinical studies and clinical trials with positive results;
- receipt of regulatory approvals from applicable authorities;
- obtaining and maintaining patent and trade secret protection and regulatory exclusivity for our product candidates;
- making arrangements with third-party manufacturers for, or establishing, commercial manufacturing capabilities;
- manufacturing products at an acceptable cost;
- launching commercial sales of our product candidates, if and when approved, whether alone or in collaboration with others;
- acceptance of the product candidates, if and when approved, by patients, the medical community and third-party payors;
- effectively competing with other therapies;
- obtaining and maintaining coverage and adequate reimbursement by third-party payors, including government payors, for our product candidates;
- protecting our rights in our intellectual property portfolio;
- maintaining a continued acceptable safety profile of the products following approval; and
- maintaining and growing an organization of scientists and business people who can develop and commercialize our products and technology.

If we do not achieve one or more of these factors in a timely manner or at all, we could experience significant delays or an inability to successfully develop and commercialize our product candidates, which would materially harm our business.

Our future success is dependent on the regulatory approval of our two lead product candidates.

We do not have any products that have gained regulatory approval. Currently, our only clinical-stage product candidates are PINTA 745, which is in a Phase 2 clinical trial, and STM 434, for which we expect to commence a Phase 1 study in the second half of 2014. Our business is substantially dependent on our ability to obtain regulatory approval for, and, if approved, to successfully commercialize our product candidates in a timely manner. We cannot commercialize product candidates in the United States without first obtaining regulatory approval for the product from the FDA; similarly, we cannot commercialize product candidates outside of the United States without obtaining regulatory approval from comparable foreign regulatory authorities. Before obtaining regulatory approvals for the commercial sale of any product candidate for a target indication, we must demonstrate with substantial evidence gathered in preclinical and clinical studies, generally including two well-controlled Phase 3 trials, that the product candidate is safe and effective for use for that target indication and that the manufacturing facilities, processes and controls are adequate with respect to such product candidate.

The time required to obtain approval by the FDA and comparable foreign regulatory authorities is unpredictable but typically takes many years following the commencement of preclinical studies and clinical trials and depends upon numerous factors, including the substantial discretion of the regulatory authorities. In addition, approval policies, regulations, or the type and amount of clinical data necessary to gain approval may change during the course of a product candidate's clinical development and may vary among jurisdictions. We have not obtained regulatory approval for any product candidate and it is possible that none of our existing product candidates or any future product candidates will ever obtain regulatory approval.

Our product candidates could fail to receive regulatory approval from the FDA or a comparable foreign regulatory authority for many reasons, including:

- disagreement with the design or implementation of our clinical trials;
- failure to demonstrate that a product candidate is safe and effective for its proposed indication;
- failure of clinical trials to meet the level of statistical significance required for approval;
- failure to demonstrate that a product candidate's clinical and other benefits outweigh its safety risks;
- disagreement with our interpretation of data from preclinical studies or clinical trials;
- the insufficiency of data collected from clinical trials of our product candidates to support the submission and filing of a BLA or other submission or to obtain regulatory approval;
- failure to obtain approval of the manufacturing processes or facilities of third-party manufacturers with whom we contract for clinical and commercial supplies; or
- changes in the approval policies or regulations that render our preclinical and clinical data insufficient for approval.

The FDA or a comparable foreign regulatory authority may require more information, including additional preclinical or clinical data to support approval, which may delay or prevent approval and our commercialization plans, or we may decide to abandon the development program. If we were to obtain approval, regulatory authorities may approve any of our product candidates for fewer or more limited indications than we request (including failing to approve the most commercially promising indications), may grant approval contingent on the performance of costly post-marketing clinical trials, or may approve a product candidate with a label that does not include the labeling claims necessary or desirable for the successful commercialization of that product candidate.

Even if a product candidate were to successfully obtain approval from the FDA and comparable foreign regulatory authorities, any approval might contain significant limitations related to use restrictions for specified age groups, warnings, precautions or contraindications, or may be subject to burdensome post-approval study or risk management requirements. If we are unable to obtain regulatory approval for one of our product candidates in one or more jurisdictions, or any approval contains significant limitations, we may not be able to obtain sufficient funding to continue the development of that product or generate revenues attributable to that product candidate. Also, any regulatory approval of our current or future product candidates, once obtained, may be withdrawn.

The results of preclinical testing or earlier clinical studies are not necessarily predictive of future results, and PINTA 745 and STM 434, and any other product candidate we advance into clinical studies or trials, may not have favorable results in later clinical studies or trials or receive regulatory approval.

Success in preclinical studies and early clinical trials does not ensure that later clinical trials will generate adequate data to demonstrate the efficacy and safety of an investigational drug. A number of companies in the pharmaceutical and biotechnology industries, including those with greater resources and experience than us, have suffered significant setbacks in clinical trials, even after seeing promising results in earlier preclinical studies or clinical trials. Despite the results reported in earlier preclinical studies or clinical trials for our product candidates, we do not know whether the clinical trials we may conduct will demonstrate adequate efficacy and safety to result in regulatory approval to market PINTA 745 or STM 434 or any of our other product candidates in any particular jurisdiction. If later-stage clinical trials do not produce favorable results, our ability to achieve regulatory approval for any of our product candidates may be adversely impacted. Even if we believe that we have adequate data

to support an application for regulatory approval to market any of our product candidates, the FDA or other regulatory authorities may not agree and may require that we conduct additional clinical trials.

Clinical drug development involves a lengthy and expensive process with an uncertain outcome.

Clinical testing is expensive, can take many years to complete, and its outcome is inherently uncertain. Failure can occur at any time during the clinical trial process. Product candidates in later stages of clinical trials may fail to show the desired safety and efficacy traits despite having progressed through preclinical studies and early clinical trials.

We may experience delays in our ongoing or future clinical studies or trials and we do not know whether planned clinical studies or trials will begin or enroll subjects on time, will need to be redesigned or will be completed on schedule, if at all. There can be no assurance that the FDA will not put clinical studies or trials of any of our product candidates on clinical hold in the future. Clinical studies or trials may be delayed, suspended or prematurely terminated for a variety of reasons, such as:

- delay or failure in reaching agreement with the FDA or a comparable foreign regulatory authority on a trial design that we are able to execute;
- delay or failure in obtaining authorization to commence a trial or inability to comply with conditions imposed by a regulatory authority regarding the scope or design of a clinical study;
- delay or failure in reaching agreement on acceptable terms with prospective contract research organizations, or CROs, and clinical trial sites, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and trial sites;
- delay or failure in obtaining institutional review board, or IRB, approval or the approval of other reviewing entities, including comparable foreign regulatory authorities, to conduct a clinical trial at each site;
- withdrawal of clinical trial sites from our clinical trials or the ineligibility of a site to participate in our clinical trials;
- delay or failure in recruiting and enrolling suitable subjects to participate in a trial;
- delay or failure in subjects completing a trial or returning for post-treatment follow-up;
- clinical sites and investigators deviating from trial protocol, failing to conduct the trial in accordance with regulatory requirements, or dropping out of a trial;
- inability to identify and maintain a sufficient number of trial sites, many of which may already be engaged in other clinical trial programs, including some that may be for the same indication;
- failure of our third-party clinical trial managers to satisfy their contractual duties, meet expected deadlines or return trustworthy data;
- delay or failure in adding new clinical trial sites;
- ambiguous or negative interim results or results that are inconsistent with earlier results;
- feedback from the FDA, the IRB, data safety monitoring boards, or a comparable foreign regulatory authority, or results from earlier stage or concurrent preclinical and clinical studies, that might require modification to the protocol for the trial;
- a decision by the FDA, the IRB, a comparable foreign regulatory authority, or us, or a recommendation by a data safety monitoring board or comparable foreign regulatory authority, to suspend or terminate clinical trials at any time for safety issues or for any other reason;
- unacceptable risk-benefit profile, unforeseen safety issues or adverse side effects;

- failure to demonstrate a benefit from using a drug;
- difficulties in manufacturing or obtaining from third parties sufficient quantities of a product candidate for use in clinical studies or trials;
- lack of adequate funding to continue the clinical study or trial, including the incurrence of unforeseen costs due to enrollment delays, requirements to conduct additional clinical studies or increased expenses associated with the services of our CROs and other third parties; or
- changes in governmental regulations or administrative actions or lack of adequate funding to continue the clinical study or trial.

Patient enrollment, a significant factor in the timing of clinical studies or trials, is affected by many factors including the size and nature of the patient population, the severity of the disease under investigation, the proximity of subjects to clinical sites, the patient referral practices of physicians, the eligibility criteria for the trial, the design of the clinical trial, ability to obtain and maintain patient consents, risk that enrolled subjects will drop out before completion, competing clinical trials and clinicians' and patients' perceptions as to the potential advantages and risks of the drug being studied in relation to other available therapies, including any new drugs that may be approved for the indications we are investigating. We may not be able to initiate or continue clinical studies for STM 434 and clinical trials for PINTA 745 or any future product candidates if we are unable to locate and enroll a sufficient number of eligible participants in these studies or trials as required by the FDA or other regulatory authorities. Even if we are able to enroll a sufficient number of patients in our clinical studies or trials, if the pace of enrollment is slower than we expect, the development costs for our product candidates may increase and the completion of our studies may be delayed or our studies could become too expensive to complete. We rely on CROs, other vendors and clinical study or trial sites to ensure the proper and timely conduct of our clinical trials, and while we have agreements governing their committed activities, we have limited influence over their actual performance.

If we experience delays in the completion or termination of any clinical trial of our product candidates, the commercial prospects of our product candidates will be harmed, and our ability to generate product revenues from any of these product candidates will be delayed. In addition, any delays in completing our clinical trials will increase our costs, slow down our product candidate development and approval process and jeopardize our ability to commence product sales and generate revenues. Any delays in completing our clinical trials for our current product candidates may also decrease the period of exclusivity in our corresponding product candidate license from Amgen. In addition, many of the factors that could cause a delay in the commencement or completion of clinical trials may also ultimately lead to the denial of regulatory approval of our product candidates.

Our product candidates, the methods used to deliver them or their dosage levels may cause undesirable side effects or have other properties that could delay or prevent their regulatory approval, limit the commercial profile of an approved label or result in significant negative consequences following any regulatory approval.

Undesirable side effects caused by our product candidates, their delivery methods or dosage levels could cause us or regulatory authorities to interrupt, delay or halt clinical trials and could result in a more restrictive label or the delay or denial of regulatory approval by the FDA or other comparable foreign regulatory authority. As a result of safety or toxicity issues that we may experience in our clinical studies or trials in the future, we may not receive approval to market any product candidates, which could prevent us from ever generating revenues or achieving profitability. Results of our studies or trials could reveal an unacceptably high severity and prevalence of side effects. In such an event, our studies or trials could be suspended or terminated and the FDA or comparable foreign regulatory authorities could order us to cease further development of or deny approval of our product candidates

for any or all targeted indications. The drug-related side effects could affect patient recruitment or the ability of enrolled subjects to complete the trial or result in potential product liability claims. Any of these occurrences may have a material adverse effect on our business, results of operations, financial condition, cash flows and future prospects.

Additionally, if any of our product candidates receives regulatory approval, and we or others later identify undesirable side effects caused by such product, a number of potentially significant negative consequences could result, including that:

- we may be forced to suspend marketing of such product;
- regulatory authorities may withdraw their approvals of such product;
- regulatory authorities may require additional warnings on the label that could diminish the usage or otherwise limit the commercial success of such products;
- we may be required to conduct post-market studies;
- we may be required to change the way the product is administered;
- we could be sued and held liable for harm caused to subjects or patients; and
- our reputation may suffer.

Any of these events could prevent us from achieving or maintaining market acceptance of the particular product candidate, if approved.

We may not be able to obtain orphan drug exclusivity for our product candidates.

Regulatory authorities in some jurisdictions, including the United States and Europe, may designate drugs for relatively small patient populations as orphan drugs. Under the Orphan Drug Act, the FDA may designate a product as an orphan drug if it is a drug intended to treat a rare disease or condition, which is generally defined as a patient population of fewer than 200,000 individuals annually in the United States. If our Phase 1 clinical study of STM 434 is successful, we intend to apply for orphan drug status for STM 434 for ovarian cancer.

Generally, if a product with an orphan drug designation subsequently receives the first regulatory approval for the indication for which it has such designation, the product is entitled to a period of marketing exclusivity, which precludes the European Medicines Agency, or EMA, or the FDA from approving another marketing application for the same drug for that time period. The applicable period is seven years in the United States and ten years in Europe. The European exclusivity period can be reduced to six years if a drug no longer meets the criteria for orphan drug designation or if the drug is sufficiently profitable so that market exclusivity is no longer justified. Orphan drug exclusivity may be lost if the FDA or EMA determines that the request for designation was materially defective or if the manufacturer is unable to assure sufficient quantity of the drug to meet the needs of patients with the rare disease or condition.

Even if we obtain orphan drug exclusivity for a product, that exclusivity may not effectively protect the product from competition because different drugs can be approved for the same condition. Even after an orphan drug is approved, the FDA can subsequently approve a new drug for the same condition if the FDA concludes that the later drug is clinically superior in that it is shown to be safer, more effective or makes a major contribution to patient care.

Failure to obtain regulatory approval in international jurisdictions would prevent our product candidates from being marketed abroad.

In addition to regulations in the United States, to market and sell our products in the European Union, many Asian countries and other jurisdictions, we must obtain separate regulatory approvals and

comply with numerous and varying regulatory requirements. We have had no significant interactions with foreign regulatory authorities to date. The approval procedure varies among countries and can involve additional testing. The time required to obtain approval may differ substantially from that required to obtain FDA approval. The regulatory approval process outside the United States generally includes all of the risks associated with obtaining FDA approval. Clinical trials accepted in one country may not be accepted by regulatory authorities in other countries. In addition, many countries outside the United States require that a product be approved for reimbursement before it can be approved for sale in that country. We may not be able to obtain approvals from regulatory authorities outside the United States on a timely basis, if at all. Approval by the FDA does not ensure approval by regulatory authorities in other countries or jurisdictions, and approval by one regulatory authority outside the United States does not ensure approval by regulatory authorities in other countries or jurisdictions or by the FDA. We may not be able to file for regulatory approvals and may not receive necessary approvals to commercialize our products in any market. If we are unable to obtain approval of any of our product candidates by regulatory authorities in the European Union, Asia or elsewhere, the commercial prospects of that product candidate may be significantly diminished, our business prospects could decline and this could materially adversely affect our business, results of operations and financial condition.

Even if our product candidates receive regulatory approval, they may still face future development and regulatory difficulties.

Even if we obtain regulatory approval for a product candidate, it would be subject to ongoing requirements by the FDA and comparable foreign regulatory authorities governing the manufacture, quality control, further development, labeling, packaging, storage, distribution, adverse event reporting, safety surveillance, import, export, advertising, promotion, recordkeeping and reporting of safety and other post-market information. These requirements include submissions of safety and other post-marketing information and reports, registration, as well as continued compliance by our contract manufacturing organizations, or CMOs, and CROs for any post-approval clinical trials that we conduct. For example, if labeling is ultimately approved for PINTA 745, it will likely include restrictions on use due to the specific patient population and manner of use in which the product candidate was evaluated and the safety and efficacy data obtained in those evaluations. In addition, PINTA 745 may be required to include a boxed warning, or “black box,” regarding PINTA 745 being teratogenic, or causing of fetal or embryotic malformations, in animal studies. The safety profile of any product will continue to be closely monitored by the FDA and comparable foreign regulatory authorities after approval. If the FDA or comparable foreign regulatory authorities become aware of new safety information after approval of any of our product candidates, they may require labeling changes or establishment of a risk evaluation and mitigation strategy, impose significant restrictions on a product’s indicated uses or marketing or impose ongoing requirements for potentially costly post-approval studies or post-market surveillance.

In addition, manufacturers of drug products and their facilities are subject to continual review and periodic inspections by the FDA and other regulatory authorities for compliance with current good manufacturing practices, or cGMP, current Good Clinical Practices, or GCP, and other regulations. If we or a regulatory agency discover previously unknown problems with a product, such as adverse events of unanticipated severity or frequency, or problems with the facility where the product is manufactured, a regulatory agency may impose restrictions on that product, the manufacturing facility or us, including requiring recall or withdrawal of the product from the market or suspension of manufacturing. If we, our product candidates or the manufacturing facilities for our product candidates fail to comply with applicable regulatory requirements, a regulatory agency may:

- issue warning letters or untitled letters;
- mandate modifications to promotional materials or require us to provide corrective information to healthcare practitioners;

- require us to enter into a consent decree, which can include imposition of various fines, reimbursements for inspection costs, required due dates for specific actions and penalties for noncompliance;
- seek an injunction or impose civil or criminal penalties or monetary fines;
- suspend or withdraw regulatory approval;
- suspend any ongoing clinical studies;
- refuse to approve pending applications or supplements to applications filed by us;
- suspend or impose restrictions on operations, including costly new manufacturing requirements; or
- seize or detain products, refuse to permit the import or export of products, or require us to initiate a product recall.

The occurrence of any event or penalty described above may inhibit our ability to commercialize our products and generate revenues.

Advertising and promotion of any product candidate that obtains approval in the United States will be heavily scrutinized by the FDA, the Department of Justice, or the DOJ, the Office of Inspector General of the Department of Health and Human Services, or HHS, state attorneys general, members of Congress and the public. Additionally, advertising and promotion of any product candidate that obtains approval outside of the United States will be heavily scrutinized by comparable foreign regulatory authorities. For example, in the event PINTA 745 obtains regulatory approval, we believe these authorities will closely monitor the use of this product candidate to determine whether it is being used impermissibly as a muscle-builder by athletes and others. Violations, including actual or alleged promotion of our products for unapproved or off-label uses, are subject to enforcement letters, inquiries and investigations, and civil and criminal sanctions by the FDA. Any actual or alleged failure to comply with labeling and promotion requirements may have a negative impact on our business.

In the United States, engaging in impermissible promotion of our products for off-label uses can also subject us to false claims litigation under federal and state statutes, which can lead to civil and criminal penalties and fines and agreements that would materially restrict the manner in which we promote or distribute our drug products. These false claims statutes include the federal False Claims Act, which allows any individual to bring a lawsuit against a pharmaceutical company on behalf of the federal government alleging submission of false or fraudulent claims, or causing to present such false or fraudulent claims, for payment by a federal program such as Medicare or Medicaid. If the government prevails in the lawsuit, the individual will share in any fines or settlement funds. Since 2004, these False Claims Act lawsuits against pharmaceutical companies have increased significantly in volume and breadth, leading to several substantial civil and criminal settlements based on certain sales practices promoting off-label drug uses. This growth in litigation has increased the risk that a pharmaceutical company will have to defend a false claim action, pay settlement fines or restitution, agree to comply with burdensome reporting and compliance obligations, and be excluded from the Medicare, Medicaid and other federal and state healthcare programs. If we do not lawfully promote our approved products, we may become subject to such litigation and, if we are not successful in defending against such actions, those actions could compromise our ability to become profitable.

We are subject to a multitude of manufacturing risks, any of which could substantially increase our costs and limit supply of our product candidates.

Concurrent with the license of our existing product candidates, we acquired manufacturing process know-how and certain intermediates, as well as certain supplies intended for clinical use, from Amgen. We are in the process of outsourcing the manufacture of additional drug substance and drug product for our preclinical and clinical studies using the know-how and supplies we received from

Amgen. Our CMOs will need to conduct significant development work to prepare each of our product candidates for studies, trials and commercial readiness.

Additionally, the process of manufacturing our product candidates is complex, highly regulated and subject to several risks, including but not limited to:

- the process of manufacturing our product candidates is extremely susceptible to product loss due to contamination, equipment failure or improper installation or operation of equipment, or vendor or operator error. Even minor deviations from normal manufacturing processes for any of our product candidates could result in reduced production yields, product defects, and other supply disruptions. Product defects can also occur unexpectedly. For example, we recently encountered a small number of cracked vials in certain STM 434 drug product lots. If microbial, viral, or other contaminations are discovered in our product candidates or in the manufacturing facilities in which our product candidates are made, such manufacturing facilities may need to be closed for an extended period of time to investigate and remedy the contamination; and
- the manufacturing facilities in which our product candidates are made could be adversely affected by earthquakes and other natural disasters, equipment failures, labor shortages, power failures, and numerous other factors.

Any adverse developments affecting manufacturing operations for our product candidates may result in shipment delays, inventory shortages, lot failures, withdrawals or recalls or other interruptions in the supply of our drug substance and drug product. We may also have to write off inventory, incur other charges and expenses for supply of drug product that fails to meet specifications, undertake costly remediation efforts, or seek more costly manufacturing alternatives. Inability to meet the demand for our products could damage our reputation and the reputation of our products among physicians, healthcare payors, patients or the medical community, including major operators of dialysis and cancer clinics which could adversely affect our ability to operate our business and our results of operations.

We may not successfully identify, acquire, develop or commercialize new potential product candidates.

Part of our business strategy is to expand our product candidate pipeline by identifying and validating new product candidates, which we may develop ourselves, in-license or otherwise acquire from others. In addition, in the event that our existing product candidates do not receive regulatory approval or are not successfully commercialized, then the success of our business will depend on our ability to expand our product pipeline through in-licensing or other acquisitions. We may be unable to identify relevant product candidates. If we do identify such product candidates, we may be unable to reach acceptable terms with any third party from which we desire to in-license or acquire them.

We may form strategic alliances in the future, and we may not realize the benefits of such alliances.

We may form strategic alliances, create joint ventures or collaborations or enter into licensing arrangements with third parties that we believe will complement or augment our existing business. These relationships, or those like them, may require us to incur non-recurring and other charges, increase our near- and long-term expenditures, issue securities that dilute our existing stockholders or disrupt our management and business. In addition, we face significant competition in seeking appropriate strategic alliances and the negotiation process is time-consuming and complex. Moreover, we may not be successful in our efforts to establish a strategic alliance or other alternative arrangements for any future product candidates and programs because our research and development pipeline may be insufficient, our product candidates and programs may be deemed to be at too early of a stage of development for collaborative effort and third parties may not view our product candidates and programs as having the requisite potential to demonstrate safety and efficacy. If we license

products or acquire businesses, we may not be able to realize the benefit of such transactions if we are unable to successfully integrate them with our existing operations and company culture. We cannot be certain that, following a strategic transaction or license, we will achieve the revenues or specific net income that justifies such transaction. Any delays in entering into new strategic alliances agreements related to our product candidates could also delay the development and commercialization of our product candidates and reduce their competitiveness even if they reach the market.

Risks Related to Our Dependence on Third Parties

We rely on third parties to conduct our preclinical and clinical trials. If these third parties do not successfully carry out their contractual duties or meet expected deadlines, or if we lose any of our CROs, we may not be able to obtain regulatory approval for or commercialize our product candidates on a timely basis, if at all.

We have relied upon and plan to continue to rely upon third-party CROs and contractors to monitor and manage data for our ongoing preclinical and clinical programs. We rely on these parties for the execution of our preclinical and clinical trials, and we control only some aspects of their activities. Nevertheless, we are responsible for ensuring that each of our studies is conducted in accordance with the applicable protocol and legal, regulatory and scientific standards, and our reliance on the CROs does not relieve us of our regulatory responsibilities. We also rely on third parties to assist in conducting our preclinical studies in accordance with Good Laboratory Practices, or GLP, and the Animal Welfare Act requirements. We and our CROs are required to comply with federal regulations and GCP, which are international standards meant to protect the rights and health of patients that are enforced by the FDA, the Competent Authorities of the Member States of the European Economic Area and comparable foreign regulatory authorities for all of our products in clinical development. Regulatory authorities enforce GCP through periodic inspections of trial sponsors, principal investigators and trial sites. If we or any of our CROs fail to comply with applicable GCP, the clinical data generated in our clinical trials may be deemed unreliable and the FDA or comparable foreign regulatory authorities may require us to perform additional clinical trials before approving our regulatory applications. We cannot assure you that upon inspection by a given regulatory authority, such regulatory authority will determine that any of our clinical trials comply with GCP requirements. In addition, our clinical trials must be conducted with product produced under cGMP requirements. We are also required to register ongoing clinical trials and post the results of completed clinical trials on a government-sponsored database, clinicaltrials.gov, within a specified timeframe. Failure to comply with these regulations may require us to repeat preclinical and clinical trials, which would delay the regulatory approval process and result in adverse publicity.

Our CROs are not our employees, and except for remedies available to us under our agreements with such CROs, we cannot control whether or not they devote sufficient time and resources, including experienced staff, to our ongoing clinical, nonclinical and preclinical programs. They may also have relationships with other entities, some of which may be our competitors. If CROs do not successfully carry out their contractual duties or obligations or meet expected deadlines or if the quality or accuracy of the clinical data they obtain is compromised due to the failure to adhere to our clinical protocols, regulatory requirements or for other reasons, our clinical trials may be extended, delayed or terminated and we may not be able to obtain regulatory approval for or successfully commercialize our product candidates. For example, there was an error in the randomization of patients and inventory distribution to our clinical sites for our Phase 2 clinical trial for PINTA 745, resulting in the unblinding of the initial six patients and a restart of the trial. CRO or contractor errors could cause our results of operations and the commercial prospects for our product candidates to be harmed, our costs to increase and our ability to generate revenues to be delayed.

Our internal capacity for clinical trial execution and management is limited and therefore we have relied on third parties. Outsourcing these functions involves risk that third parties may not perform to

our standards, may not produce results in a timely manner or may fail to perform at all. In addition, the use of third-party service providers requires us to disclose our proprietary information to these parties, which could increase the risk that this information will be misappropriated. We currently have a small number of employees, which limits the internal resources we have available to identify and monitor our third-party providers. To the extent we are unable to identify and successfully manage the performance of third-party service providers in the future, our business may be adversely affected. Though we carefully manage our relationships with our CROs, there can be no assurance that we will not encounter challenges or delays in the future or that these delays or challenges will not have a material adverse impact on our business, financial condition and prospects.

Our CROs have the right to terminate their agreements with us in the event of an uncured material breach. In addition, some of our CROs have an ability to terminate their respective agreements with us if it can be reasonably demonstrated that the safety of the subjects participating in our clinical trials warrants such termination, if we make a general assignment for the benefit of our creditors or if we are liquidated. Identifying, qualifying and managing performance of third-party service providers can be difficult, time consuming and cause delays in our development programs. In addition, there is a natural transition period when a new CRO commences work and the new CRO may not provide the same type or level of services as the original provider. If any of our relationships with our third-party CROs terminate, we may not be able to enter into arrangements with alternative CROs or to do so on commercially reasonable terms.

We have no experience manufacturing our product candidates on a clinical or commercial scale and have no manufacturing facility. We are dependent on third parties for the manufacturing of our product candidates and our supply chain, and if we experience problems with any of these third parties, the manufacturing of our product candidates could be delayed.

We do not own or operate facilities for the manufacturing of our product candidates. We currently have no plans to build our own clinical or commercial scale manufacturing capabilities. We currently rely on single source CMOs for the production of our product candidates and on single source suppliers of some of the materials incorporated in our product candidates. To meet our projected needs for clinical supplies to support our activities through regulatory approval and commercial manufacturing, the CMOs with whom we currently work will need to increase the scale of production and, for PINTA 745 and STM 434, we will need to demonstrate comparability of the material produced by these CMOs to the material that was previously produced by Amgen. We may need to identify additional CMOs for continued production of supply for our product candidates. We have not yet identified alternate suppliers in the event the current CMOs that we utilize are unable to scale production, or if we otherwise experience any problems with them. Manufacturing biologic drugs is complicated and tightly regulated by the FDA and comparable regulatory authorities around the world, and although alternative third-party suppliers with the necessary manufacturing and regulatory expertise and facilities exist, it could be expensive and take a significant amount of time to arrange for alternative suppliers, transfer manufacturing procedures to these alternative suppliers, and demonstrate comparability of material produced by such new suppliers. New manufacturers of any product would be required to qualify under applicable regulatory requirements. These manufacturers may not be able to manufacture our compounds at costs, or in quantities, or in a timely manner necessary to complete development of our product candidates or make commercially successful products. If we are unable to arrange for alternative third-party manufacturing sources, or to do so on commercially reasonable terms or in a timely manner, we may not be able to complete development of our product candidates, or market or distribute them. In addition, should the FDA not agree with our physical quality specifications and comparability assessments for these materials, further clinical development of our product candidate would be substantially delayed and we would incur substantial additional expenses.

Reliance on third-party manufacturers entails risks to which we would not be subject if we manufactured product candidates ourselves, including reliance on the third party for regulatory compliance and quality assurance, the possibility of breach of the manufacturing agreement by the third party because of factors beyond our control, including a failure to synthesize and manufacture our product candidates or any products we may eventually commercialize in accordance with our specifications, misappropriation of our proprietary information, including our trade secrets and know-how, and the possibility of termination or nonrenewal of the agreement by the third party, based on its own business priorities, at a time that is costly or damaging to us. In addition, the FDA and other regulatory authorities require that our product candidates and any products that we may eventually commercialize be manufactured according to cGMP and similar foreign standards. These requirements include, among other things, quality control, quality assurance and the maintenance of records and documentation. The FDA or similar foreign regulatory agencies may also implement new standards at any time, or change their interpretations and enforcement of existing standards for manufacture, packaging or testing of products. We have little control over our manufacturers' compliance with these regulations and standards. Any failure by our third-party manufacturers to comply with cGMP or failure to scale up manufacturing processes, including any failure to deliver sufficient quantities of product candidates in a timely manner, could lead to a delay in, or failure to obtain, regulatory approval of any of our product candidates. In addition, such failure could be the basis for the FDA to issue a warning letter, withdraw approvals for product candidates previously granted to us, or take other regulatory or legal action, including recall or seizure of outside supplies of the product candidate, total or partial suspension of production, suspension of ongoing clinical trials, refusal to approve pending applications or supplemental applications, detention or product, refusal to permit the import or export of products, injunction or imposing civil and criminal penalties.

Any significant disruption in our supplier relationships could harm our business. Any significant delay in the supply of a product candidate or its key materials for an ongoing clinical study could considerably delay completion of our clinical studies, product testing and potential regulatory approval of our product candidates. If our manufacturers or we are unable to purchase these key materials after regulatory approval has been obtained for our product candidates, the commercial launch of our product candidates would be delayed or there would be a shortage in supply, which would impair our ability to generate revenues from the sale of our product candidates.

Risks Related to Our Intellectual Property

If we are unable to obtain and maintain sufficient intellectual property protection for our product candidates, or if the scope of the intellectual property protection is not sufficiently broad, our ability to commercialize our product candidates successfully and to compete effectively may be adversely affected.

We rely upon a combination of patents, trade secrets and confidentiality agreements to protect the intellectual property related to our technology and product candidates. For our two most advanced product candidates, PINTA 745 and STM 434, we own or license a number of issued patents and pending patent applications covering the product candidates' compositions of matter and methods of use. For PINTA 745, the expected expiration dates range from 2026 to 2034 for US patents and patent applications, if issued, and from 2023 to 2034 for patents and patent applications, if issued, in jurisdictions outside the United States, exclusive of possible patent term extensions. For STM 434, the expected expiration dates range from 2027 through 2035 for US patents and patent applications, if issued, and from 2026 through 2035 for patents and patent applications, if issued, in jurisdictions outside the United States, exclusive of possible patent term extensions. If we do not adequately protect our intellectual property, competitors may be able to use our technologies and erode or negate any competitive advantage we may have, which could harm our business and ability to achieve profitability. The patentability of inventions and the validity, enforceability and scope of patents in the biotechnology field is generally uncertain because it involves complex legal, scientific and factual considerations, and

it has in recent years been the subject of significant litigation. Moreover, the standards applied by the US Patent and Trademark Office, or USPTO, and non-US patent offices in granting patents are not always applied uniformly or predictably. For example, there is no uniform worldwide policy regarding patentable subject matter or the scope of claims allowable in biotechnology patents.

Consequently, the patent applications that we own or in-license may fail to result in issued patents with claims that cover our product candidates in the United States or in other countries for many reasons. There is no assurance that all potentially relevant prior art relating to our patents and patent applications has been found. We may be unaware of prior art that could be used to invalidate an issued patent or prevent our pending patent applications from issuing as patents. There also may be prior art of which we are aware, but which we do not believe affects the validity or enforceability of a claim of one of our patents or patent applications, which may, nonetheless, ultimately be found to affect the validity or enforceability of such claim.

Even if patents have issued or do successfully issue from patent applications, and even if such patents cover our product candidates, third parties may challenge the validity, enforceability or scope thereof, which may result in such patents being narrowed, invalidated or held to be unenforceable. No assurance can be given that if challenged, our patents would be declared by a court to be valid or enforceable. Furthermore, even if they are unchallenged, our patents and patent applications may not adequately protect our intellectual property, provide exclusivity for our product candidates or prevent others from designing around our claims. The possibility exists that others will develop products on an independent basis which have the same effect as our product candidates and which do not infringe our patents or other intellectual property rights, or that others will design around the claims of patents that we have had issued that cover our product candidates. If the breadth or strength of protection provided by the patents and patent applications we hold, license or pursue with respect to our product candidates is threatened, it could threaten our ability to commercialize our product candidates. In addition, the USPTO and various foreign governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other similar provisions during the patent application process. While an inadvertent lapse can in many cases be cured by payment of a late fee or by other means in accordance with the applicable rules, there are situations in which noncompliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. Any of these outcomes could have an adverse impact on our business.

If patent applications that we hold or in-license with respect to our technology or product candidates fail to issue, if their breadth or strength of protection is threatened, or if they fail to provide meaningful exclusivity for our product candidates, it could dissuade companies from collaborating with us. We have recently filed several patent applications covering our product candidates. We cannot offer any assurances about which, if any, patents will be issued with respect to these pending patent applications, the breadth of any such patents, whether any issued patents will be found invalid and unenforceable or will be threatened by third parties. Any successful challenge to these patents or any other patents owned by or exclusively licensed to us could deprive us of rights necessary for the successful commercialization of any product candidate that we or our collaborators may develop. Because patent applications in the United States and most other countries are confidential for a period of time after filing, and some remain so until issued, we cannot be certain that we were the first to file any patent application related to a product candidate. Furthermore, if third parties have filed such patent applications, an interference proceeding in the United States can be initiated by the USPTO or a third party to determine who was the first to invent any of the subject matter covered by the patent claims of our applications. Similarly, we could become involved in derivation proceedings before the USPTO to determine inventorship with respect to our patent applications. We may also become involved in similar opposition proceedings in the European Patent Office or counterpart offices in other jurisdictions regarding our intellectual property rights. In addition, patents have a limited lifespan. In the United States, the natural expiration of a patent generally occurs 20 years after it is filed. Although various extensions may be available if certain conditions are met, the life of a patent and the protection

it affords is limited. If we encounter delays in our clinical trials or in obtaining regulatory approvals, the period of time during which we could exclusively market any of our product candidates under patent protection, if approved, could be reduced. Even if patents covering our product candidates are obtained, once the patent life has expired for a product, we may be vulnerable to competition from biosimilar products. Any loss of patent protection could have a material adverse impact on our business. We may be unable to prevent competitors from entering the market with a product that is similar or identical to our product candidates, which could harm our business and ability to achieve profitability.

If we are sued for infringing the intellectual property rights of third parties, such litigation could be costly and time-consuming and could prevent or delay our development and commercialization efforts.

Our commercial success depends, in part, on us and our collaborators not infringing the patents and proprietary rights of third parties. There is a substantial amount of litigation, both within and outside the United States, involving patent and other intellectual property rights in the biotechnology and pharmaceutical industries, including patent infringement lawsuits, interference or derivation proceedings, oppositions, *inter partes* reexamination and review proceedings before the USPTO and correspondingnon-US patent offices. Numerous US and non-US issued patents and pending patent applications owned by third parties exist in the fields in which we are developing and may develop our product candidates. As the biotechnology and pharmaceutical industries expand and more patents are issued, the risk increases that our product candidates may be subject to claims of infringement of third parties' patent rights as it may not always be clear to industry participants, including us, which patents cover various types of products or methods of use. The coverage of patents is subject to interpretation by the courts, and the interpretation is not always uniform or predictable.

Third parties may assert infringement claims against us based on existing or future intellectual property rights, alleging that we are employing their proprietary technology without authorization. There may be third-party patents or patent applications with claims to materials, formulations, methods of manufacture or methods for treatment related to the use or manufacturing of our product candidates that we failed to identify. For example, applications filed before November 29, 2000, and certain applications filed after that date that will not be filed outside the United States, remain confidential until issued as patents. Except for the preceding exceptions, patent applications in the United States and elsewhere are generally published only after a waiting period of approximately 18 months after the earliest filing date. Therefore, patent applications covering our product candidates could have been filed by others without our knowledge. In addition, pending patent applications that have been published, including some of which we are aware, could be later amended in a manner that could cover our product candidates or their use or manufacture. We may analyze patents or patent applications of our competitors that we believe are relevant to our activities and believe that we are free to operate in relation to any of our product candidates, but our competitors may obtain issued claims, including in patents we consider to be unrelated, which may block our efforts or potentially result in any of our product candidates or our activities infringing such claims. If we are sued for patent infringement, we would need to demonstrate that our product candidates, products and methods either do not infringe the patent claims of the relevant patent or that the patent claims are invalid, and we may not be able to do this. Proving that a patent is invalid is difficult. For example, in the United States, proving invalidity requires a showing of clear and convincing evidence to overcome the presumption of validity enjoyed by issued patents. Even if we are successful in these proceedings, we may incur substantial costs and the time and attention of our management and scientific personnel could be diverted, which could have a material adverse effect on us. If any issued third-party patents were held by a court of competent jurisdiction to cover aspects of our materials, formulations, methods of manufacture or methods for treatment, we could be forced, including by court order, to cease developing, manufacturing or commercializing the relevant product candidate until such patent expired. Alternatively, we may be required to obtain a license from such third party in order to use the infringing

technology and to continue developing, manufacturing or marketing the infringing product candidate. However, we may not be able to obtain any required license on commercially reasonably terms, or at all. Even if we were able to obtain a license, the rights may be nonexclusive, which could result in our competitors gaining access to the same intellectual property licensed to us. Ultimately, we could be prevented from commercializing a product candidate, or be forced to cease some aspect of our business operations, if, as a result of actual or threatened patent infringement claims, we are unable to enter into licenses on acceptable terms. This could harm our business significantly.

Parties making claims against us may obtain injunctive or other equitable relief, which could effectively block our ability to further develop and commercialize one or more of our product candidates. Defending against claims of patent infringement or misappropriation of trade secrets could be costly and time consuming, regardless of the outcome. Thus, even if we were to ultimately prevail, or to settle at an early stage, such litigation could burden us with substantial unanticipated costs. In addition, litigation or threatened litigation could result in significant demands on the time and attention of our management team, distracting them from the pursuit of other company business. In the event of a successful claim of infringement against us, we may have to pay substantial damages, including treble damages and attorneys' fees if we are found to have willfully infringed a patent, or to redesign our infringing product candidates which may be impossible or require substantial time and monetary expenditure. We may also elect to enter into license agreements in order to settle patent infringement claims prior to litigation, and any such license agreement may require us to pay royalties and other fees that could be significant.

We may face claims that we misappropriated the confidential information or trade secrets of a third party. If we are found to have misappropriated a third party's trade secrets, we may be prevented from further using such trade secrets, which could limit our ability to develop our product candidates. We are not aware of any material threatened or pending claims related to these matters, but in the future litigation may be necessary to defend against such claims. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to management. During the course of any patent or other intellectual property litigation, there could be public announcements of the results of hearings, rulings on motions, and other interim proceedings in the litigation. If securities analysts or investors regard these announcements as negative, the perceived value of our product candidates, programs or intellectual property could be diminished. Accordingly, the market price of our common stock may decline.

We may not be able to protect our intellectual property rights throughout the world.

Filing, prosecuting, enforcing and defending patents on all of our product candidates in all countries throughout the world would be prohibitively expensive. Our or our licensors' intellectual property rights in certain countries outside the United States may be less extensive than those in the United States. In addition, the laws of certain foreign countries do not protect intellectual property rights to the same extent as laws in the United States. Consequently, we and our licensors may not be able to prevent third parties from practicing our and our licensors' inventions in countries outside the United States, or from selling or importing infringing products made using our and our licensors' inventions in and into the United States or other jurisdictions. Competitors may use our and our licensors' technologies in jurisdictions where we have not obtained patent protection to develop their own products and, further, may export otherwise infringing products to territories where we and our licensors have patent protection but where enforcement is not as strong as that in the United States. These infringing products may compete with our product candidates in jurisdictions where we or our licensors have no issued patents and our patent claims and other intellectual property rights may not be effective or sufficient to prevent them from so competing. Many companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions. The

legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents and other intellectual property protection, particularly those relating to biopharmaceuticals, which could make it difficult for us and our licensors to stop the infringement of our and our licensors' patents or marketing of competing products in violation of our and our licensors' proprietary rights generally. Proceedings to enforce our and our licensors' patent rights in foreign jurisdictions could result in substantial costs and divert our attention from other aspects of our business, could put our and our licensors' patents at risk of being invalidated or interpreted narrowly, could put our and our licensors' patent applications at risk of not issuing, and could provoke third parties to assert claims against us or our licensors. We or our licensors may not prevail in any lawsuits that we or our licensors initiate, and even if we or our licensors are successful the damages or other remedies awarded, if any, may not be commercially meaningful.

We have in-licensed a significant portion of our intellectual property from Amgen. If we breach any of our license agreements with Amgen, we could lose the ability to continue the development and potential commercialization of one or more of our product candidates.

We hold rights under a number of license agreements with Amgen that are important to our business. Our discovery and development platform is built, in part, around patents exclusively in-licensed from Amgen. These agreements generally grant us the exclusive (except as to the licenses to Amgen know-how, which are non-exclusive and limited as to their field of use), worldwide (except with regard to PINTA 745 in Japan, which was previously licensed to Takeda Pharmaceutical Company Limited) license to research, develop, improve, make, use, offer for sale, sell, import, export or otherwise exploit several classes of novel compounds, including PINTA 745 and STM 434. Under our existing license agreements, we are subject to various obligations, including diligence obligations with respect to development and commercialization activities, payment obligations upon achievement of certain milestones and royalties on product sales, as well as other material obligations. If there is any conflict, dispute, disagreement or issue of non-performance between us and Amgen regarding our rights or obligations under the license agreements, including any such conflict, dispute or disagreement arising from our failure to satisfy diligence or payment obligations under any such agreement, we may be liable to pay damages and Amgen may have a right to terminate the affected license. The loss of any or all of our license agreements with Amgen could materially adversely affect our ability to proceed to utilize the affected intellectual property in our drug discovery and development efforts, and our ability to enter into future collaboration, licensing and/or marketing agreements for one or more affected product candidates. The risks described elsewhere pertaining to our patents and other intellectual property rights also apply to the intellectual property rights that we license, and any failure by us or our licensors to obtain, maintain and enforce these rights could have a material adverse effect on our business.

We may become involved in lawsuits to protect or enforce our intellectual property, which could be expensive, time-consuming and unsuccessful and have a material adverse effect on the success of our business and on our stock price.

Third parties may infringe our patents, the patents of our licensors, or misappropriate or otherwise violate our or our licensors' intellectual property rights. Our and our licensors' patent applications cannot be enforced against third parties practicing the technology claimed in such applications unless and until a patent issues from such applications, and then only to the extent the issued claims cover the technology. In the future, we or our licensors may elect to initiate legal proceedings to enforce or defend our or our licensors' intellectual property rights, to protect our or our licensors' trade secrets or to determine the validity or scope of intellectual property rights we own or control. Any claims that we assert against perceived infringers could also provoke these parties to assert counterclaims against us alleging that we infringe their intellectual property rights. In addition, third parties may initiate legal proceedings against us or our licensors to challenge the validity or scope of intellectual property rights we own or control. The proceedings can be expensive and time-consuming. Many of our or our

licensors' adversaries in these proceedings may have the ability to dedicate substantially greater resources to prosecuting these legal actions than we or our licensors can. Accordingly, despite our or our licensors' efforts, we or our licensors may not be able to prevent third parties from infringing upon or misappropriating intellectual property rights we own or control, particularly in countries where the laws may not protect our rights as fully as in the United States. Litigation could result in substantial costs and diversion of management resources, which could harm our business and financial results. In addition, in an infringement proceeding, a court may decide that a patent owned by or licensed to us is invalid or unenforceable, in whole or in part, or may refuse to stop the other party from using the technology at issue on the grounds that our or our licensors' patents do not cover the technology in question. An adverse result in any litigation proceeding could put one or more of our or our licensors' patents at risk of being invalidated, held unenforceable or interpreted narrowly.

Interference or derivation proceedings provoked by third parties, brought by us or our licensors or collaborators, or brought by the USPTO or any non-US patent authority may be necessary to determine the priority of inventions or other matters of inventorship with respect to our patents or patent applications. We may also become involved in other proceedings, such as re-examination or opposition proceedings, *inter partes* review or other preissuance or post-grant proceedings in the USPTO or its foreign counterparts relating to our intellectual property or the intellectual property rights of others. An unfavorable outcome in any such proceeding could require us or our licensors to cease using the related technology and commercializing our product candidates, or to attempt to license rights to it from the prevailing party. Our business could be harmed if the prevailing party does not offer us or our licensors a license on commercially reasonable terms if any license is offered at all. Even if we or our licensors obtain a license, it may be non-exclusive, thereby giving our competitors access to the same technologies licensed to us or our licensors. In addition, if the breadth or strength of protection provided by our or our licensors' patents and patent applications is threatened, it could dissuade companies from collaborating with us to license, develop or commercialize current or future product candidates. Even if we successfully defend such litigation or proceeding, we may incur substantial costs and it may distract our management and other employees. We could be found liable for monetary damages, including treble damages and attorneys' fees, if we are found to have willfully infringed a patent.

Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of shares of our common stock.

Changes in patent law could diminish the value of patents in general, thereby impairing our ability to protect our product candidates.

As is the case with other biotechnology and pharmaceutical companies, our success is heavily dependent on intellectual property, particularly patents. Obtaining and enforcing patents in the biopharmaceutical industry involves both technological and legal complexity, and obtaining and enforcing biopharmaceutical patents is costly, time-consuming, and inherently uncertain. The Supreme Court has ruled on several patent cases in recent years, either narrowing the scope of patent protection available in certain circumstances or weakening the rights of patent owners in certain situations. In addition to increasing uncertainty with regard to our and our licensors' ability to obtain patents in the future, this combination of events has created uncertainty with respect to the value of patents once obtained. Depending on future decisions by the US Congress, or Congress, the federal courts and the USPTO, the laws and regulations governing patents could change in unpredictable ways that may weaken our and our licensors' ability to obtain new patents or to enforce existing patents and patents we and our licensors or collaborators may obtain in the future.

Recent patent reform legislation could increase the uncertainties and costs surrounding the prosecution of our and our licensors' patent applications and the enforcement or defense of our or our licensors' issued patents. On September 16, 2011, the Leahy-Smith America Invents Act, or the Leahy-Smith Act, was signed into law. The Leahy-Smith Act includes a number of significant changes to US patent law. These include provisions that affect the way patent applications are prosecuted and may also affect patent litigation. The USPTO recently developed new regulations and procedures to govern administration of the Leahy-Smith Act, and many of the substantive changes to patent law associated with the Leahy-Smith Act, and in particular, the first to file provisions, only became effective on March 16, 2013. Accordingly, it is not clear what, if any, impact the Leahy-Smith Act will have on the operation of our business. However, the Leahy-Smith Act and its implementation could increase the uncertainties and costs surrounding the prosecution of our or our licensors' patent applications and the enforcement or defense of our or our licensors' issued patents, all of which could have a material adverse effect on our business and financial condition.

If we are unable to protect the confidentiality of our trade secrets and other proprietary information, the value of our technology could be materially adversely affected and our business could be harmed.

In addition to seeking the protection afforded by patents, we rely on trade secret protection and confidentiality agreements to protect proprietary know-how that is not patentable or that we elect not to patent, processes for which patents are difficult to enforce, and other elements of our technology, discovery and development processes that involve proprietary know-how, information or technology that is not covered by patents. Any disclosure to or misappropriation by third parties of our confidential proprietary information could enable competitors to quickly duplicate or surpass our technological achievements, thus eroding our competitive position in the market. However, trade secrets can be difficult to protect. We seek to protect our proprietary technology and processes, in part, by entering into confidentiality agreements and invention assignment agreements with our employees, consultants, and outside scientific advisors, contractors and collaborators. These agreements are designed to protect our proprietary information. Although we use reasonable efforts to protect our trade secrets, our employees, consultants, contractors, or outside scientific advisors might intentionally or inadvertently disclose our trade secrets or confidential, proprietary information to competitors. In addition, competitors may otherwise gain access to our trade secrets or independently develop substantially equivalent information and techniques. If any of our confidential proprietary information were to be lawfully obtained or independently developed by a competitor, we would have no right to prevent such competitor from using that technology or information to compete with us, which could harm our competitive position.

Enforcing a claim that a third party illegally obtained and is using any of our trade secrets is expensive and time consuming, and the outcome is unpredictable. In addition, the laws of certain foreign countries do not protect proprietary rights such as trade secrets to the same extent or in the same manner as the laws of the United States. Misappropriation or unauthorized disclosure of our trade secrets to third parties could impair our competitive advantage in the market and could materially adversely affect our business, results of operations and financial condition.

Risks Related to Commercialization of Our Product Candidates

Our commercial success depends upon attaining significant market acceptance of our product candidates, if approved, among physicians, patients, healthcare payors and major operators of dialysis and cancer clinics.

Even if we obtain regulatory approval for any of our product candidates that we may develop or acquire in the future, the product may not gain market acceptance among physicians, healthcare payors, patients or the medical community, including major operators of dialysis and cancer clinics.

Market acceptance of any of our product candidates for which we receive approval depends on a number of factors, including:

- the efficacy and safety of such product candidates as demonstrated in clinical trials;
- the clinical indications for which the product candidate is approved;
- acceptance by physicians, major operators of cancer and dialysis clinics and patients of the drug as a safe and effective treatment;
- the potential and perceived advantages of product candidates over alternative treatments;
- the safety of product candidates seen in a broader patient group, including its use outside the approved indications;
- any restrictions on use together with other medications;
- the prevalence and severity of any side effects;
- product labeling or product insert requirements of the FDA or other regulatory authorities;
- the timing of market introduction of our products as well as competitive products;
- the cost of treatment in relation to alternative treatments;
- the availability of coverage and adequate reimbursement and pricing by third-party payors and government authorities;
- relative convenience and ease of administration; and
- the effectiveness of our sales and marketing efforts and those of our collaborators.

If any of our product candidates are approved but fail to achieve market acceptance among physicians, patients, healthcare payors or major operators of dialysis and cancer clinics, we will not be able to generate significant revenues, which would compromise our ability to become profitable. In particular, the dialysis industry is dominated by two companies, DaVita Healthcare Partners and Fresenius. In the event PINTA 745 fails to be accepted by either of these companies, our ability to generate revenues from PINTA 745 and become profitable would be adversely affected.

Even if we are able to commercialize our product candidates, the products may not receive coverage and adequate reimbursement from third-party payors in the United States and in other countries in which we seek to commercialize our products, which could harm our business.

Our ability to commercialize any product successfully will depend, in part, on the extent to which coverage and adequate reimbursement for these products and related treatments will be available from government health administration authorities, private health insurers and other organizations. Government authorities and third-party payors, such as private health insurers and health maintenance organizations, determine which medications they will cover and establish reimbursement levels. A primary trend in the healthcare industry is cost containment. Government authorities and third-party payors have attempted to control costs by limiting coverage and the amount of reimbursement for particular medications. Increasingly, third-party payors are requiring that drug companies provide them with predetermined discounts from list prices and are challenging the prices charged for medical products. Third-party payors may also seek additional clinical evidence, beyond the data required to obtain regulatory approval, demonstrating clinical benefits and value in specific patient populations before covering our products for those patients. We cannot be sure that coverage and adequate reimbursement will be available for any product that we commercialize and, if reimbursement is available, what the level of reimbursement will be. Coverage and reimbursement may impact the demand for, or the price of, any product candidate for which we obtain regulatory approval. If reimbursement is not available or is available only at limited levels, we may not be able to successfully commercialize any product candidate for which we obtain regulatory approval.

There may be significant delays in obtaining coverage and reimbursement for newly approved drugs, and coverage may be more limited than the purposes for which the drug is approved by the FDA or comparable foreign regulatory authorities. Moreover, eligibility for coverage and reimbursement does not imply that any drug will be paid for in all cases or at a rate that covers our costs, including research, development, manufacture, sale and distribution. Interim reimbursement levels for new drugs, if applicable, may also not be sufficient to cover our costs and may only be temporary. Reimbursement rates may vary according to the use of the drug and the clinical setting in which it is used, may be based on reimbursement levels already set for lower cost drugs and may be incorporated into existing payments for other services. Net prices for drugs may be reduced by mandatory discounts or rebates required by government healthcare programs or private payors and by any future relaxation of laws that presently restrict imports of drugs from countries where they may be sold at lower prices than in the United States. Third-party payors in the United States often rely upon Medicare coverage policy and payment limitations in setting their own reimbursement policies. Our inability to promptly obtain coverage and profitable reimbursement rates from both government-funded and private payors for any approved products that we develop could have a material adverse effect on our operating results, our ability to raise capital needed to commercialize products and our overall financial condition.

Recently enacted and future legislation, including potentially unfavorable pricing regulations or other healthcare reform initiatives, may increase the difficulty and cost for us to obtain regulatory approval of and commercialize our product candidates and affect the prices we may obtain.

The regulations that govern, among other things, regulatory approvals, coverage, pricing and reimbursement for new drug products vary widely from country to country. In the United States and some foreign jurisdictions, there have been a number of legislative and regulatory changes and proposed changes regarding the healthcare system that could prevent or delay regulatory approval of our product candidates, restrict or regulate post-approval activities and affect our ability to successfully sell any product candidates for which we obtain regulatory approval.

In the United States, the Medicare Prescription Drug, Improvement, and Modernization Act of 2003, or Medicare Modernization Act, changed the way Medicare covers and pays for pharmaceutical products. The legislation expanded Medicare coverage for drug purchases by the elderly and introduced a new reimbursement methodology based on average sales prices for physician-administered drugs. In particular, all Medicare payments for dialysis treatments to ESRD patients are now made under a single bundled payment rate that provides a fixed payment rate to encompass all goods and services provided during the dialysis treatment, including pharmaceuticals that were historically separately reimbursed to the dialysis providers, irrespective of the level of pharmaceuticals administered or additional services performed. Most lab services that used to be paid directly to laboratories are also included in the bundled payment. Unless we are able to secure an exemption, PINTA 745 may be subject to the bundled payment system. In recent years, Congress has considered further reductions in Medicare reimbursement for drugs administered by physicians. The Center for Medicare and Medicaid Services, or CMS, the agency that runs the Medicare program, also has the authority to revise reimbursement rates, including under the bundled payment system, and to implement coverage restrictions for some drugs. Cost reduction initiatives and changes in coverage implemented through legislation or regulation could decrease utilization of and reimbursement for any approved products, which in turn would affect the price we can receive for those products. While the Medicare Modernization Act and Medicare regulations apply only to drug benefits for Medicare beneficiaries, private payors often follow Medicare coverage policy and payment limitations in setting their own reimbursement rates. Therefore, any reduction in reimbursement that results from federal legislation or regulation may result in a similar reduction in payments from private payors.

In March 2010, President Obama signed into law the Patient Protection and Affordable Care Act and the Health Care and Education Affordability Reconciliation Act of 2010, or the Affordable Care Act,

a sweeping law intended to broaden access to health insurance, reduce or constrain the growth of healthcare spending, enhance remedies against fraud and abuse, add new transparency requirements for healthcare and health insurance industries, impose new taxes and fees on pharmaceutical and medical device manufacturers and impose additional health policy reforms. The Affordable Care Act expanded manufacturers' rebate liability to include covered drugs dispensed to individuals who are enrolled in Medicaid managed care organizations, increased the minimum rebate due for innovator drugs from 15.1% of average manufacturer price, or AMP, to 23.1% of AMP, and capped the total rebate amount for innovator drugs at 100% of AMP. The Affordable Care Act and subsequent legislation also changed the definition of AMP. Furthermore, the Affordable Care Act imposes a significant annual, nondeductible fee on companies that manufacture or import certain branded prescription drug products. Substantial new provisions affecting compliance have also been enacted, which may affect our business practices with healthcare practitioners, and a significant number of provisions are not yet, or have only recently become, effective. Although it is too early to determine the effect of the Affordable Care Act, it appears likely to continue the pressure on pharmaceutical pricing, especially under the Medicare program, and may also increase our regulatory burdens and operating costs.

In addition, other legislative changes have been proposed and adopted since the Affordable Care Act was enacted. More recently, in August 2011, the President signed into law the Budget Control Act of 2011, which, among other things, creates the Joint Select Committee on Deficit Reduction to recommend to Congress proposals in spending reductions. The Joint Select Committee did not achieve a targeted deficit reduction of at least $1.2 trillion for the years 2013 through 2021, triggering the legislation's automatic reduction to several government programs. This includes aggregate reductions to Medicare payments to providers of up to 2% per fiscal year, starting in 2013. In January 2013, President Obama signed into law the American Taxpayer Relief Act of 2012, which, among other things, reduced Medicare payments to several providers and increased the statute of limitations period for the government to recover overpayments to providers from three to five years. In March 2013, the President signed an executive order implementing sequestration, and in April 2013, the 2% Medicare reductions went into effect. These new laws may result in additional reductions in Medicare and other healthcare funding, which could have a material adverse effect on our customers and accordingly, our financial operations. Legislative and regulatory proposals have been made to expand post-approval requirements and restrict sales and promotional activities for pharmaceutical products. We cannot be sure whether additional legislative changes will be enacted, or whether the FDA regulations, guidance or interpretations will be changed, or what the impact of such changes on the regulatory approvals of our product candidates, if any, may be.

In the United States, the European Union and other potentially significant markets for our product candidates, government authorities and third-party payors are increasingly attempting to limit or regulate the price of medical products and services, particularly for new and innovative products and therapies, which has resulted in lower average selling prices. Furthermore, the increased emphasis on managed healthcare in the United States and on country and regional pricing and reimbursement controls in the European Union will put additional pressure on product pricing, reimbursement and usage, which may adversely affect our future product sales and results of operations. These pressures can arise from rules and practices of managed care groups, judicial decisions and governmental laws and regulations related to Medicare, Medicaid and healthcare reform, pharmaceutical reimbursement policies and pricing in general.

Price controls may be imposed in foreign markets, which may adversely affect our future profitability.

In some countries, particularly member states of the European Union, the pricing of prescription drugs is subject to governmental control. In these countries, pricing negotiations with governmental authorities can take considerable time after receipt of regulatory approval for a product. In addition,

there can be considerable pressure by governments and other stakeholders on prices and reimbursement levels, including as part of cost containment measures. Political, economic and regulatory developments may further complicate pricing negotiations, and pricing negotiations may continue after reimbursement has been obtained. Reference pricing used by various European Union member states and parallel distribution, or arbitrage between low-priced and high-priced member states, can further reduce prices. In some countries, we or our collaborators may be required to conduct a clinical trial or other studies that compare the cost-effectiveness of our product candidates to other available therapies in order to obtain or maintain reimbursement or pricing approval. Publication of discounts by third-party payors or authorities may lead to further pressure on the prices or reimbursement levels within the country of publication and other countries. If reimbursement of our products is unavailable or limited in scope or amount, or if pricing is set at unsatisfactory levels, our business could be adversely affected.

We face substantial competition, which may result in others discovering, developing or commercializing products before or more successfully than we do.

We face competition from numerous pharmaceutical and biotechnology enterprises, as well as from academic institutions, government agencies and private and public research institutions for our current and future product candidates. Our commercial opportunities will be reduced or eliminated if our competitors develop and commercialize products that are safer, more effective, have fewer side effects or are less expensive than any products that we may develop. Competition could result in reduced sales and pricing pressure on our product candidates, if approved, which in turn would reduce our ability to generate meaningful revenues and have a negative impact on our results of operations. In addition, significant delays in the development of our product candidates could allow our competitors to bring products to market before us and impair any ability to commercialize our product candidates.

Products are currently marketed or used off-label for the muscle wasting-related indications for which the products in our pipeline are being developed, and a number of companies are or may be developing new treatments for muscle wasting indications. These products, as well as promotional efforts by competitors and clinical trial results of competitive products, could significantly diminish any ability to market and sell PINTA 745 and other product candidates focused on muscle wasting-related indications. Today's treatment for protein-energy wasting and cancer cachexia often involves the administration of readily available nutritional supplements and appetite stimulants including, in some jurisdictions, medical marijuana. In addition, there are two commercially available steroids, nandrolone and oxandrolone, that are sometimes prescribed off-label for the treatment of weight loss in cancer patients. A number of companies are developing drug candidates for muscle wasting applications, including: Eli Lilly & Co., which is conducting Phase 1 clinical studies and Phase 2 clinical trials for LY2495655, and Pfizer Inc., which is conducting Phase 1 clinical studies for PF-06252616, both of which are myostatin antibodies, to evaluate their ability to increase and improve muscle mass in various patient populations; Novartis Corporation, which is conducting Phase 1 clinical studies and Phase 2 clinical trials for BYM338, an ActR2B antibody, to evaluate its ability to build muscle in patients with various muscle-wasting conditions; Ligand Pharmaceuticals, which is developing LGD-4033, a selective androgen receptor modulator, for muscle wasting; Regeneron Pharmaceuticals, Inc., which is developing REGN1033, a myostatin antibody, in collaboration with Sanofi-Aventis; and GTx, Inc., which is developing ostarine, a selective androgen receptor modulator for cachexia.

There are numerous approved products and therapies for ovarian cancer, and a number of companies are or may be developing new treatments for ovarian cancer and other solid tumors. These therapies, as well as promotional efforts by competitors and clinical trial results of competitive products, could significantly diminish any ability to market and sell STM 434. Approved drug therapies for ovarian cancer include chemotherapy with platinum compounds such as cisplatin or carboplatin and taxane compounds such as paclitaxel or docetaxel, and hormone therapies including gosarelin, luprolide,

tamoxifen, letrozole, anostrazole and exemestane. A number of companies are developing drug candidates for ovarian cancer and other solid tumors, including Genentech/Roche, which is developing bevacizumab (Avastin) and other potential drug therapies.

Many of these approved drugs and therapies for muscle wasting and ovarian cancer are well-established and are widely accepted by physicians, patients and third-party payors. Some of these drugs are branded and subject to patent protection, and other drugs and nutritional supplements are available on a generic basis. Insurers and other third-party payors may encourage the use of generic products or specific branded products. We expect that if either PINTA 745 or STM 434 is approved, it will be priced at a significant premium over competitive generic products. This pricing premium may make it difficult for us to differentiate these products from currently approved or commonly used therapies and impede adoption of our product, which may adversely impact our business. In addition, many companies are developing new therapeutics, and we cannot predict what the standard of care will become as our products continue in clinical development.

Many of our competitors or potential competitors have significantly greater established presence in the market, financial resources and expertise in research and development, manufacturing, preclinical testing, conducting clinical trials, obtaining regulatory approvals and marketing approved products than we do, and as a result may have a competitive advantage over us. Smaller or early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. These third parties compete with us in recruiting and retaining qualified scientific and management personnel, establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies and technology licenses complementary to our programs or advantageous to our business.

As a result of these factors, these competitors may obtain regulatory approval of their products before we are able to obtain patent protection or other intellectual property rights, which will limit our ability to develop or commercialize our product candidates. Our competitors may also develop drugs that are safer, more effective, more widely used and cheaper than ours, and may also be more successful than us in manufacturing and marketing their products. These appreciable advantages could render our product candidates obsolete or non-competitive before we can recover the expenses of development and commercialization.

Mergers and acquisitions in the pharmaceutical and biotechnology industries may result in even more resources being concentrated among a smaller number of our competitors. Smaller and other early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. These third parties compete with us in recruiting and retaining qualified scientific, management and commercial personnel, establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies complementary to, or necessary for, our programs.

If we are unable to establish sales and marketing capabilities or enter into agreements with third parties to market and sell our product candidates, we may be unable to generate any revenue.

We do not currently have an organization for the sale, marketing and distribution of pharmaceutical products and the cost of establishing and maintaining such an organization may exceed the cost-effectiveness of doing so. In order to market any products that may be approved by the FDA and comparable foreign regulatory authorities, we must build our sales, marketing, managerial and other non-technical capabilities or make arrangements with third parties to perform these services. There are significant risks involved in building and managing a sales organization, including our ability to hire, retain and incentivize qualified individuals, generate sufficient sales leads, provide adequate training to sales and marketing personnel and effectively manage a geographically dispersed sales and

marketing team. Any failure or delay in the development of our internal sales, marketing and distribution capabilities would adversely impact the commercialization of these products. If we are unable to establish adequate sales, marketing and distribution capabilities, whether independently or with third parties, we may not be able to generate product revenues and may not become profitable. We will be competing with many companies that currently have extensive and well-funded sales and marketing operations. Without an internal commercial organization or the support of a third party to perform sales and marketing functions, we may be unable to compete successfully against these more established companies. If we are not successful in commercializing our current or future product candidates either on our own or through collaborations with one or more third parties, our future product revenue will suffer and we would incur significant additional losses.

We will need to grow the size of our organization, and we may experience difficulties in managing this growth.

As of March 31, 2014, we had 11 employees. As our development and commercialization plans and strategies develop, or as a result of any future acquisitions, we will need additional managerial, operational, manufacturing, sales, marketing, financial and other resources. Our management, personnel and systems currently in place may not be adequate to support this future growth. Future growth would impose significant added responsibilities on members of management, including:

- managing our clinical studies and trials effectively;
- identifying, recruiting, maintaining, motivating and integrating additional employees;
- managing our internal development efforts effectively while complying with our contractual obligations to licensors, licensees, contractors and other third parties;
- improving our managerial, development, operational and finance systems; and
- expanding our facilities.

As our operations expand, we will need to manage additional relationships with various strategic partners, suppliers and other third parties. Our future financial performance and our ability to commercialize our product candidates and to compete effectively will depend, in part, on our ability to manage any future growth effectively. To that end, we must be able to manage our development efforts and clinical studies and trials effectively and hire, train and integrate additional management, research and development, manufacturing, administrative and sales and marketing personnel. Our failure to accomplish any of these tasks could prevent us from successfully growing our company.

Our future success depends on our ability to retain our executive officers and to attract, retain and motivate qualified personnel.

We are highly dependent upon our personnel, including Isaac E. Ciechanover, M.D., our President, Chief Executive Officer and founder, and Christopher Haqq, Ph.D., M.D., our Chief Medical Officer. Our employment agreements with Drs. Ciechanover and Haqq are at-will and do not prevent them from terminating their employment with us at any time. The loss of the services of either of them could impede the achievement of our research, development and commercialization objectives.

Our future growth and success depend on our ability to recruit, retain, manage and motivate our employees. The loss of any member of our senior management team or the inability to hire or retain experienced management personnel could compromise our ability to execute our business plan and harm our operating results. Because of the specialized scientific and managerial nature of our business, we rely heavily on our ability to attract and retain qualified scientific, technical and managerial personnel. The competition for qualified personnel in the pharmaceutical field is intense and as a result, we may be unable to continue to attract and retain qualified personnel necessary for the development of our business.

Our relationships with customers and third-party payors will be subject to applicable anti-kickback, fraud and abuse and other healthcare laws and regulations, which could expose us to criminal sanctions, civil penalties, contractual damages, reputational harm and diminished profits and future earnings.

Healthcare providers, physicians and third-party payors will play a primary role in the recommendation and prescription of any product candidates for which we obtain regulatory approval. Our future arrangements with third-party payors and customers may expose us to broadly applicable fraud and abuse and other healthcare laws and regulations that may constrain the business or financial arrangements and relationships through which we would market, sell and distribute our products. As a pharmaceutical company, even though we do not and will not control referrals of healthcare services or bill directly to Medicare, Medicaid or other third-party payors, federal and state healthcare laws and regulations pertaining to fraud and abuse and patients' rights are and will be applicable to our business. Restrictions under applicable federal and state healthcare laws and regulations that may affect our ability to operate include the following:

- the federal healthcare Anti-Kickback Statute will constrain our marketing practices, educational programs, pricing policies, and relationships with healthcare providers or other entities, by prohibiting, among other things, persons from knowingly and willfully soliciting, offering, receiving or providing remuneration, directly or indirectly, in cash or in kind, to induce or reward, or in return for, either the referral of an individual for, or the purchase, order or recommendation of, any good or service, for which payment may be made under a federal healthcare program such as Medicare and Medicaid;
- federal civil and criminal false claims laws and civil monetary penalty laws impose criminal and civil penalties, including through civil whistleblower or qui tam actions, against individuals or entities for knowingly presenting, or causing to be presented, to the federal government, including the Medicare and Medicaid programs, claims for payment that are false or fraudulent or making a false statement to avoid, decrease or conceal an obligation to pay money to the federal government;
- the federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, imposes criminal and civil liability for executing a scheme to defraud any healthcare benefit program and also created federal criminal laws that prohibit knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false statements in connection with the delivery of or payment for healthcare benefits, items or services;
- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act, or HITECH, also imposes obligations, including mandatory contractual terms, with respect to safeguarding the privacy, security and transmission of individually identifiable health information;
- the federal physician sunshine requirements under the Affordable Care Act requires manufacturers of drugs, devices, biologics and medical supplies to report annually to HHS information related to payments and other transfers of value to physicians, other healthcare providers, and teaching hospitals, and ownership and investment interests held by physicians and other healthcare providers and their immediate family members and applicable group purchasing organizations; and
- analogous state and foreign laws and regulations, such as state anti-kickback and false claims laws, may apply to sales or marketing arrangements and claims involving healthcare items or services reimbursed by non-governmental third-party payors, including private insurers; some state laws require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government and may require drug manufacturers to report information related to payments and other transfers of value to physicians and other healthcare providers or marketing expenditures; and state and foreign laws govern the privacy and security of health

information in specified circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts.

Efforts to ensure that our business arrangements with third parties will comply with applicable healthcare laws and regulations will involve substantial costs. It is possible that governmental authorities will conclude that our business practices may not comply with current or future statutes, regulations or case law involving applicable fraud and abuse or other healthcare laws and regulations. If our operations are found to be in violation of any of these laws or any other governmental regulations that may apply to us, we may be subject to significant civil, criminal and administrative penalties, damages, fines, imprisonment, exclusion from government funded healthcare programs, such as Medicare and Medicaid, and the curtailment or restructuring of our operations. If any physicians or other healthcare providers or entities with whom we expect to do business are found to not be in compliance with applicable laws, they may be subject to criminal, civil or administrative sanctions, including exclusions from government funded healthcare programs.

Our employees may engage in misconduct or other improper activities, including noncompliance with regulatory standards and requirements, which could cause significant liability for us and harm our reputation.

We are exposed to the risk of employee fraud or other misconduct, including intentional failures to comply with FDA regulations or similar regulations of comparable foreign regulatory authorities, provide accurate information to the FDA or comparable foreign regulatory authorities, comply with manufacturing standards we have established, comply with federal and state healthcare fraud and abuse laws and regulations and similar laws and regulations established and enforced by comparable foreign regulatory authorities, report financial information or data accurately or disclose unauthorized activities to us. Employee misconduct could also involve the improper use of information obtained in the course of clinical trials, which could result in regulatory sanctions and serious harm to our reputation. It is not always possible to identify and deter employee misconduct, and the precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws or regulations. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business and results of operations, including the imposition of significant fines or other sanctions.

Product liability lawsuits against us could cause us to incur substantial liabilities and to limit commercialization of any products that we may develop.

We face an inherent risk of product liability exposure related to the testing of our product candidates in human clinical trials and will face an even greater risk if we commercially sell any products that we may develop. Product liability claims may be brought against us by subjects enrolled in our clinical trials, patients, healthcare providers or others using, administering or selling our products. If we cannot successfully defend ourselves against claims that our product candidates or products caused injuries, we could incur substantial liabilities. Regardless of merit or eventual outcome, liability claims may result in:

- decreased demand for any product candidates or products that we may develop;
- termination of clinical trial sites or entire trial programs;
- injury to our reputation and significant negative media attention;
- withdrawal of clinical trial participants;
- significant costs to defend the related litigation;

- substantial monetary awards to trial subjects or patients;
- loss of revenue;
- diversion of management and scientific resources from our business operations; and
- the inability to commercialize any products that we may develop.

We currently hold $5.0 million in product liability insurance coverage in the aggregate, which we believe is customary for similarly situated companies and adequate to provide us with insurance coverage for foreseeable risks, but which may not be adequate to cover all liabilities that we may incur. Insurance coverage is increasingly expensive. We may not be able to maintain insurance coverage at a reasonable cost or in an amount adequate to satisfy any liability that may arise. We intend to expand our insurance coverage for products to include the sale of commercial products if we obtain regulatory approval for our product candidates in development, but we may be unable to obtain commercially reasonable product liability insurance for any products that receive regulatory approval. Large judgments have been awarded in class action lawsuits based on drugs that had unanticipated side effects. A successful product liability claim or series of claims brought against us, particularly if judgments exceed our insurance coverage, could decrease our cash and adversely affect our business.

If we and our third-party manufacturers fail to comply with environmental, health and safety laws and regulations, we could become subject to fines or penalties or incur costs that could have a material adverse effect on the success of our business.

We and our third-party manufacturers are subject to numerous environmental, health and safety laws and regulations, including those governing laboratory procedures and the handling, use, storage, treatment and disposal of hazardous materials and wastes. Our operations involve the use of hazardous and flammable materials, including chemicals and biological materials. Our operations also produce hazardous waste products. We generally contract with third parties for the disposal of these materials and wastes. We cannot eliminate the risk of contamination or injury from these materials. In the event of contamination or injury resulting from our or our third-party manufacturers' use of hazardous materials, we could be held liable for any resulting damages, and any liability could exceed our resources. We also could incur significant costs associated with civil or criminal fines and penalties.

Although we maintain workers' compensation insurance to cover us for costs and expenses we may incur due to injuries to our employees resulting from the use of hazardous materials with a policy limit that we believe is customary for similarly situated companies and adequate to provide us with insurance coverage for foreseeable risks, this insurance may not provide adequate coverage against potential liabilities. We do not maintain insurance for environmental liability or toxic tort claims that may be asserted against us in connection with our storage or disposal of biological or hazardous materials.

In addition, we may incur substantial costs in order to comply with current or future environmental, health and safety laws and regulations. These current or future laws and regulations may impair our research, development or production efforts. Failure to comply with these laws and regulations also may result in substantial fines, penalties or other sanctions.

Our business and operations would suffer in the event of computer system failures or security breaches.

Our internal computer systems, and those of our CROs and other business vendors on which we rely, are vulnerable to damage from computer viruses, unauthorized access, natural disasters, fire, terrorism, war and telecommunication and electrical failures. We exercise little or no control over these third parties, which increases our vulnerability to problems with their systems. If such an event were to occur and cause interruptions in our operations, it could result in a material disruption of our drug

development programs. For example, the loss of clinical trial data from completed, ongoing or planned clinical trials could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce the data. To the extent that any disruption or security breach results in a loss of or damage to our data or applications, or inappropriate disclosure of confidential or proprietary information, we could incur liability, the further development of our product candidates could be delayed and our business could be otherwise adversely affected.

Business disruptions could seriously harm our future revenues and financial condition and increase our costs and expenses.

Our operations could be subject to earthquakes, power shortages, telecommunications failures, water shortages, floods, hurricanes, typhoons, fires, extreme weather conditions, medical epidemics and other natural or manmade disasters or business interruptions, for which we are predominantly self-insured. The occurrence of any of these business disruptions could seriously harm our operations and financial condition and increase our costs and expenses. We rely on third-party manufacturers to produce our product candidates. Our ability to obtain clinical supplies of product candidates could be disrupted, if the operations of these suppliers are affected by a man-made or natural disaster or other business interruption. The ultimate impact on us, our significant suppliers and our general infrastructure is unknown, but our operations and financial condition could suffer in the event of a major earthquake, fire or other natural disaster.

Risks Related to This Offering and Ownership of Our Common Stock

We do not know whether an active, liquid and orderly trading market will develop for our common stock or what the market price of our common stock will be and as a result it may be difficult for you to sell your shares of our common stock.

Prior to this offering there has been no market for shares of our common stock. An active trading market for our shares may never develop or be sustained following this offering. The initial public offering price for our common stock will be determined through negotiations with the underwriters, and the negotiated price may not be indicative of the market price of our common stock after this offering. The market value of our common stock may decrease from the initial public offering price. As a result of these and other factors, you may be unable to resell your shares of our common stock at or above the initial public offering price. The lack of an active market may impair your ability to sell your shares at the time you wish to sell them or at a price that you consider reasonable. The lack of an active market may also reduce the fair market value of your shares. Further, an inactive market may also impair our ability to raise capital by selling shares of our common stock and may impair our ability to enter into collaborations or acquire companies or products by using our shares of common stock as consideration. The market price of our stock may be volatile, and you could lose all or part of your investment.

The trading price of our common stock following this offering is likely to be highly volatile and could be subject to wide fluctuations in response to various factors, some of which are beyond our control. In addition to the factors discussed in this “Risk Factors” section and elsewhere in this prospectus, these factors include:

- the success of competitive products or technologies;
- regulatory actions with respect to our product candidates or products or our competitors’ product candidates or products;
- actual or anticipated changes in our growth rate relative to our competitors;
- announcements by us or our competitors of significant acquisitions, strategic partnerships, joint ventures, collaborations or capital commitments;
- results of clinical trials of our product candidates or those of our competitors;

- regulatory or legal developments in the United States and other countries;
- developments or disputes concerning patent applications, issued patents or other proprietary rights;
- the recruitment or departure of key personnel;
- the level of expenses related to any of our product candidates or clinical development programs;
- the results of our efforts to in-license or acquire additional product candidates or products;
- actual or anticipated changes in estimates as to financial results, development timelines or recommendations by securities analysts;
- variations in our financial results or those of companies that are perceived to be similar to us;
- fluctuations in the valuation of companies perceived by investors to be comparable to us;
- inconsistent trading volume levels of our shares;
- announcement or expectation of additional financing efforts;
- sales of our common stock by us, our insiders or our other stockholders;
- changes in the structure of healthcare payment systems;
- market conditions in the pharmaceutical and biotechnology sectors; and
- general economic, industry and market conditions.

In addition, the stock market in general, and pharmaceutical and biotechnology companies in particular, have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of these companies. Broad market and industry factors may negatively affect the market price of our common stock, regardless of our actual operating performance. The realization of any of these risks or any of a broad range of other risks, including those described in these "Risk Factors," could have a dramatic and material adverse impact on the market price of our common stock.

We may be subject to securities litigation, which is expensive and could divert management attention.

The market price of our common stock may be volatile, and in the past companies that have experienced volatility in the market price of their stock have been subject to securities class action litigation. We may be the target of this type of litigation in the future. Securities litigation against us could result in substantial costs and divert our management's attention from other business concerns, which could seriously harm our business.

Our principal stockholders and management own a significant percentage of our stock and will be able to exert significant control over matters subject to stockholder approval.

Prior to this offering, our executive officers, directors, holders of 5% or more of our capital stock and their respective affiliates together beneficially owned over 98% of our voting stock and, upon consummation of this offering, that same group will together hold approximately % of our outstanding voting stock, assuming no exercise of the underwriters' over-allotment option, no exercise of outstanding options and after giving effect to the issuance of shares in this offering. These stockholders may be able to determine the outcome of all matters requiring stockholder approval. For example, these stockholders may be able to control elections of directors, amendments of our organizational documents, or approval of any merger, sale of assets, or other major corporate

transaction. This may prevent or discourage unsolicited acquisition proposals or offers for our common stock that you may feel are in your best interest as one of our stockholders. The interests of this group of stockholders may not always coincide with your interests or the interests of other stockholders and they may act in a manner that advances their best interests and not necessarily those of other stockholders, including seeking a premium value for their common stock, and might affect the prevailing market price for our common stock.

If you purchase our common stock in this offering, you will incur immediate and substantial dilution in the book value of your shares.

The initial public offering price is substantially higher than the net tangible book value per share of our common stock. Investors purchasing common stock in this offering will pay a price per share that substantially exceeds the book value of our tangible assets after subtracting our liabilities. As a result, investors purchasing common stock in this offering will incur immediate dilution of $ per share, based on an assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover of this prospectus. Further, investors purchasing common stock in this offering will contribute approximately % of the total amount invested by stockholders since our inception, but will own, as a result of such investment, only approximately % of the shares of common stock outstanding immediately following this offering.

The vesting and settlement of any of our outstanding RSUs will result in additional dilution. As a result of the dilution to investors purchasing shares in this offering, investors may receive significantly less than the purchase price paid in this offering, if anything, in the event of our liquidation. Further, because we may need to raise additional capital to fund our clinical development programs, we may in the future sell substantial amounts of common stock or securities convertible into or exchangeable for common stock. These future issuances of equity or equity-linked securities, together with the exercise of outstanding options and any additional shares issued in connection with acquisitions, if any, may result in further dilution to investors.

We are an "emerging growth company" and we intend to take advantage of reduced disclosure and governance requirements applicable to emerging growth companies, which could result in our common stock being less attractive to investors.

We are an "emerging growth company," as defined in the JOBS Act, and we intend to take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not emerging growth companies including, but not limited to, not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved. We cannot predict if investors will find our common stock less attractive because we will rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile. We may take advantage of these reporting exemptions until we are no longer an emerging growth company, which in certain circumstances could be for up to five years. We will cease to be an "emerging growth company" upon the earliest of: (1) the last day of the fiscal year following the fifth anniversary of this offering, (2) the last day of the first fiscal year in which our annual gross revenues are $1 billion or more, (3) the date on which we have, during the previous rolling three-year period, issued more than $1 billion in non-convertible debt securities, and (4) the date on which we are deemed to be a "large accelerated filer" as defined in the Exchange Act.

Our status as an "emerging growth company" under the JOBS Act may make it more difficult to raise capital as and when we need it.

Because of the exemptions from various reporting requirements provided to us as an "emerging growth company" we may be less attractive to investors and it may be difficult for us to raise additional capital as and when we need it. Investors may be unable to compare our business with other companies in our industry if they believe that our financial accounting is not as transparent as other companies in our industry. If we are unable to raise additional capital as and when we need it, our financial condition and results of operations may be materially and adversely affected.

We will incur increased costs as a result of being a public company and our management expects to devote substantial time to public company compliance programs.

As a public company, we will incur significant legal, insurance, accounting and other expenses that we did not incur as a private company. In addition, our administrative staff will be required to perform additional tasks. For example, in anticipation of becoming a public company, we will need to adopt additional internal controls and disclosure controls and procedures and bear all of the internal and external costs of preparing and distributing periodic public reports in compliance with our obligations under the securities laws. We intend to invest resources to comply with evolving laws, regulations and standards, and this investment will result in increased general and administrative expenses and may divert management's time and attention from product development activities. If our efforts to comply with new laws, regulations and standards differ from the activities intended by regulatory or governing bodies due to ambiguities related to practice, regulatory authorities may initiate legal proceedings against us and our business may be harmed. In connection with this offering, we are increasing our directors' and officers' insurance coverage to a level that we believe is customary for similarly situated companies and adequate to provide us with insurance coverage for foreseeable risks, which will increase our insurance cost. In the future, it will be more expensive for us to obtain director and officer liability insurance, and we may be required to accept reduced coverage or incur substantially higher costs to obtain coverage. These factors could also make it more difficult for us to attract and retain qualified members of our board of directors, particularly to serve on our audit committee and compensation committee, and qualified executive officers.

In addition, in order to comply with the requirements of being a public company, we may need to undertake various actions, including implementing new internal controls and procedures and hiring new accounting or internal audit staff. The Sarbanes-Oxley Act requires that we maintain effective disclosure controls and procedures and internal control over financial reporting. We are continuing to develop and refine our disclosure controls and other procedures that are designed to ensure that information required to be disclosed by us in the reports that we file with the Securities and Exchange Commission, or SEC, is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and that information required to be disclosed in reports under the Exchange Act is accumulated and communicated to our principal executive and financial officers. Any failure to develop or maintain effective controls could adversely affect the results of periodic management evaluations. In the event that we are not able to demonstrate compliance with the Sarbanes-Oxley Act, that our internal control over financial reporting is perceived as inadequate, or that we are unable to produce timely or accurate financial statements, investors may lose confidence in our operating results and the price of our ordinary shares could decline. In addition, if we are unable to continue to meet these requirements, we may not be able to remain listed on The Nasdaq Global Market, or Nasdaq.

We are not currently required to comply with the SEC's rules that implement Section 404 of the Sarbanes-Oxley Act, and are therefore not yet required to make a formal assessment of the effectiveness of our internal control over financial reporting for that purpose. Upon becoming a public company, we will be required to comply with certain of these rules, which will require management to

certify financial and other information in our quarterly and annual reports and provide an annual management report on the effectiveness of our internal control over financial reporting commencing with our second annual report. This assessment will need to include the disclosure of any material weaknesses in our internal control over financial reporting identified by our management or our independent registered public accounting firm. To achieve compliance with Section 404 within the prescribed period, we will be engaged in a process to document and evaluate our internal control over financial reporting, which is both costly and challenging. In this regard, we will need to continue to dedicate internal resources, potentially engage outside consultants and adopt a detailed work plan to assess and document the adequacy of internal control over financial reporting, continue steps to improve control processes as appropriate, validate through testing that controls are functioning as documented and implement a continuous reporting and improvement process for internal control over financial reporting. Despite our efforts, there is a risk that we will not be able to conclude, within the prescribed timeframe or at all, that our internal control over financial reporting is effective as required by Section 404. If we identify one or more material weaknesses, it could result in an adverse reaction in the financial markets due to a loss of confidence in the reliability of our financial statement.

Our independent registered public accounting firm will not be required to formally attest to the effectiveness of our internal control over financial reporting until the later of our second annual report or the first annual report required to be filed with the SEC following the date we are no longer an “emerging growth company” as defined in the JOBS Act. We cannot assure you that there will not be material weaknesses or significant deficiencies in our internal controls in the future.

We have identified a material weakness in our internal control over financial reporting and may identify additional material weaknesses in the future that may cause us to fail to meet our reporting obligations or result in material misstatements of our financial statements. If we fail to remediate any material weaknesses or if we fail to establish and maintain effective control over financial reporting, our ability to accurately and timely report our financial results could be adversely affected.

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements in accordance with US generally accepted accounting principles. A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting such that there is a reasonable possibility that a material misstatement of annual or interim financial statements will not be prevented or detected on a timely basis.

Prior to the completion of this offering, we have been a private company with limited accounting personnel and other resources to address our internal control over financial reporting. During the course of preparing for this offering, we determined that we had a material weakness in our internal control over financial reporting as of December 31, 2012 and 2013 relating to the design and operation of our closing and financial reporting processes.

For a discussion of our remediation plan and the actions that we have executed during 2014, see “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Internal Control over Financial Reporting.” The actions we have taken are subject to continued review, supported by confirmation and testing by management as well as audit committee oversight. While we have implemented a plan to remediate this weakness, we cannot assure you that we will be able to remediate this weakness, which could impair our ability to accurately and timely report our financial position, results of operations or cash flows. If we are unable to successfully remediate this material weakness, and if we are unable to produce accurate and timely financial statements, our stock price may be adversely affected and we may be unable to maintain compliance with applicable Nasdaq listing requirements.

Our failure to remediate the material weakness identified above or the identification of additional material weaknesses in the future, could adversely affect our ability to report financial information, including our filing of quarterly or annual reports with the SEC on a timely and accurate basis. Moreover, our failure to remediate the material weakness identified above or the identification of additional material weaknesses could prohibit us from producing timely and accurate financial statements, which may adversely affect our stock price and we may be unable to maintain compliance with Nasdaq listing requirements.

Because we do not anticipate paying any cash dividends on our capital stock in the foreseeable future, capital appreciation, if any, will be your sole source of potential gain.

We have never declared or paid cash dividends on our capital stock. We currently intend to retain all of our future earnings, if any, to finance the growth and development of our business. In addition, the terms of any future debt agreements may preclude us from paying dividends. As a result, capital appreciation, if any, of our common stock will be your sole source of gain for the foreseeable future.

Sales of a substantial number of shares of our common stock in the public market could cause our stock price to fall.

Sales of a substantial number of shares of our common stock in the public market could occur at any time. These sales, or the perception in the market that the holders of a large number of shares intend to sell shares, could reduce the market price of our common stock. After this offering, we will have outstanding shares of common stock based on the number of shares outstanding as of March 31, 2014. This includes the shares that we are selling in this offering, which may be resold in the public market immediately without restriction, unless purchased by our affiliates. Of the remaining shares, 18,724,086 shares of our common stock, will be restricted as a result of securities laws or lock-up agreements but will be able to be sold after the offering as described in the “Shares Eligible for Future Sale” section of this prospectus. Moreover, after this offering, holders of an aggregate of 18,374,087 shares of our common stock as of March 31, 2014 will have rights, subject to certain conditions, to require us to file registration statements covering their shares or to include their shares in registration statements that we may file for ourselves or other stockholders. We also intend to register all shares of common stock that we may issue under our equity compensation plans. Once we register these shares, they can be freely sold in the public market upon issuance, subject to volume limitations applicable to affiliates and the lock-up agreements described in the “Underwriting” section of this prospectus.

Future sales and issuances of our common stock or rights to purchase common stock, including pursuant to our equity incentive plans, could result in additional dilution of the percentage ownership of our stockholders and could cause our stock price to fall.

We expect that significant additional capital will be needed in the future to continue our planned operations. To raise capital, we may sell substantial amounts of common stock or securities convertible into or exchangeable for common stock. These future issuances of common stock or common stock-related securities, together with the exercise of outstanding options and any additional shares issued in connection with acquisitions, if any, may result in material dilution to our investors. Such sales may also result in material dilution to our existing stockholders, and new investors could gain rights, preferences and privileges senior to those of holders of our common stock, including shares of common stock sold in this offering.

Pursuant to our equity incentive plans, our compensation committee is authorized to grant equity-based incentive awards to our directors, executive officers and other employees and service providers,

including officers, employees and service providers of our subsidiaries. Future grants of RSUs, options and other equity awards and issuances of common stock under our equity incentive plans may have an adverse effect on the market price of our common stock.

We have broad discretion in the use of the net proceeds from this offering and may not use them effectively.

Although we currently intend to use the net proceeds from this offering in the manner described in "Use of Proceeds" elsewhere in this prospectus, our management will have broad discretion in the application of the net proceeds from this offering and could spend the proceeds in ways that do not improve our results of operations or enhance the value of our common stock. The failure by our management to apply these funds effectively could result in financial losses that could have a material adverse effect on our business, cause the market price of our common stock to decline and delay the development of our product candidates. Pending their use, we may invest the net proceeds from this offering in a manner that does not produce income or that loses value. If we do not invest the net proceeds from this offering in ways that enhance stockholder value, we may fail to achieve expected financial results, which could cause the price of our common stock to decline.

Some provisions of our charter documents and Delaware law may have anti-takeover effects that could discourage an acquisition of us by others, even if an acquisition would be beneficial to our stockholders and may prevent attempts by our stockholders to replace or remove our current management.

Provisions in our amended and restated certificate of incorporation, or certificate of incorporation, and amended and restated bylaws, or bylaws, that will become effective in connection with consummation of this offering, as well as provisions of Delaware law, could make it more difficult for a third party to acquire us or increase the cost of acquiring us, even if doing so would benefit our stockholders, or remove our current management. These include provisions that will:

- permit our board of directors to issue up to 20,000,000 shares of preferred stock, with any rights, preferences and privileges as they may designate;
- provide that all vacancies on our board of directors, including as a result of newly created directorships, may, except as otherwise required by law, be filled by the affirmative vote of a majority of directors then in office, even if less than a quorum;
- require that any action to be taken by our stockholders must be effected at a duly called annual or special meeting of stockholders and not be taken by written consent;
- provide that stockholders seeking to present proposals before a meeting of stockholders or to nominate candidates for election as directors at a meeting of stockholders must provide advance notice in writing, and also specify requirements as to the form and content of a stockholder's notice;
- not provide for cumulative voting rights, thereby allowing the holders of a majority of the shares of common stock entitled to vote in any election of directors to elect all of the directors standing for election; and
- provide that special meetings of our stockholders may be called only by the board of directors or by such person or persons requested by a majority of the board of directors to call such meetings.

These provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our board of directors, who are responsible for appointing the members of our management. Because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General

Corporation Law, which may discourage, delay or prevent someone from acquiring us or merging with us whether or not it is desired by or beneficial to our stockholders. Under Delaware law, a corporation may not, in general, engage in a business combination with any holder of 15% or more of its capital stock unless the holder has held the stock for three years or, among other things, the board of directors has approved the transaction. Any provision of our amended and restated certificate of incorporation or amended and restated bylaws or Delaware law that has the effect of delaying or deterring a change in control could limit the opportunity for our stockholders to receive a premium for their shares of our common stock, and could also affect the price that some investors are willing to pay for our common stock.

If securities or industry analysts do not publish research or publish inaccurate or unfavorable research about our business, our stock price and trading volume could decline.

The trading market for our common stock will depend in part on the research and reports that securities or industry analysts publish about us or our business. Securities and industry analysts do not currently, and may never, publish research on our company. If no securities or industry analysts commence coverage of our company, the trading price for our stock would likely be negatively impacted. In the event securities or industry analysts initiate coverage, if one or more of the analysts who cover us downgrade our stock or publish inaccurate or unfavorable research about our business, our stock price would likely decline. If one or more of these analysts cease coverage of our company or fail to publish reports on us regularly, demand for our stock could decrease, which might cause our stock price and trading volume to decline.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS AND INDUSTRY DATA

This prospectus, including the sections titled "Prospectus Summary," "Risk Factors," "Use of Proceeds," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Business," contains forward-looking statements. In some cases you can identify these statements by forward-looking words such as "believe," "may," "will," "estimate," "continue," "anticipate," "intend," "could," "would," "project," "plan," "expect" or the negative or plural of these words or similar expressions. These forward-looking statements include, but are not limited to, statements concerning the following:

- our expectations regarding the timing of reporting results from our Phase 2 clinical trial of PINTA 745;
- our expectations regarding the timing of our Phase 1 clinical study of STM 434;
- the likelihood and timing of regulatory approvals for our product candidates;
- the potential market opportunities for commercializing our product candidates;
- our expectations regarding the potential market size and the size of the patient populations for our products candidates, if approved for commercial use;
- estimates of our expenses, capital requirements and need for additional financing;
- our ability to develop, acquire and advance product candidates into, and successfully complete, clinical studies and trials;
- the initiation, timing, progress and results of future preclinical studies and clinical trials and our research and development programs;
- the scope of protection we are able to obtain and maintain for our intellectual property rights covering our product candidates;
- our use of proceeds from this offering;
- our financial performance;
- developments and projections relating to our competitors and our industry; and
- our ability to sell or manufacture products at commercially reasonable values.

These statements are only current predictions and are subject to known and unknown risks, uncertainties and other factors that may cause our or our industry's actual results, levels of activity, performance or achievements to be materially different from those anticipated by the forward-looking statements. We discuss many of these risks in this prospectus in greater detail under the heading "Risk Factors" and elsewhere in this prospectus. You should not rely upon forward-looking statements as predictions of future events. New risk factors and uncertainties may emerge from time to time, and it is not possible for management to predict all risks and uncertainties.

Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance or achievements. Except as required by law, after the date of this prospectus, we are under no duty to update or revise any of the forward-looking statements, whether as a result of new information, future events or otherwise.

We obtained industry, market and competitive position data in this prospectus from our own internal estimates and research as well as from industry and general publications and research surveys and studies conducted by third parties. These data involve a number of assumptions and limitations, and you are cautioned not to give undue weight to such information or estimates.

USE OF PROCEEDS

We estimate that we will receive net proceeds from the sale of common stock of approximately $ million, based upon an assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, and after deducting estimated underwriting discounts and commissions and estimated offering expenses. If the underwriters' option to purchase additional shares of common stock is exercised in full, we estimate that we will receive net proceeds of approximately $ million, after deducting estimated underwriting discounts and commissions and estimated offering expenses.

Each $1.00 increase (decrease) in the assumed initial public offering price of $ per share would increase (decrease) the net proceeds to us from this offering by approximately $ million, assuming the number of shares offered, as set forth on the cover page of this prospectus, remains the same and after deducting estimated underwriting discounts and commissions. Similarly, each increase (decrease) of 1,000,000 shares in the number of shares of common stock offered would increase (decrease) the net proceeds to us from this offering by approximately $ million, assuming that the assumed initial public offering price remains the same, and after deducting estimated underwriting discounts and commissions.

As of March 31, 2014, we had cash and cash equivalents and short-term investments of $62.0 million. We currently estimate that we will use the net proceeds from this offering, together with our existing cash and cash equivalents and short-term investments, as follows:

- approximately $38.8 million to fund the clinical development and manufacturing of PINTA 745, including the costs of our ongoing pilot Phase 2 clinical trial and our planned confirmatory Phase 2 clinical trial expected to take place thereafter;
- approximately $31.0 million to fund the clinical development and manufacturing of STM 434, including the costs of our initial Phase 1 clinical study, expected to take place through the first half of 2016;
- approximately $12.5 million to expand and advance our preclinical research pipeline; and
- the remainder for working capital and for other general corporate purposes, which includes funding the costs of operating as a public company and may include acquiring or licensing products, businesses or technologies, although we have no present commitments for any such acquisitions or licenses.

This expected use of our net proceeds from this offering represents our intentions based upon our current plans and business conditions, which could change in the future as our plans and business conditions evolve. The amounts and timing of our actual expenditures may vary significantly depending on numerous factors, including the progress of our development, the status of and results from preclinical and clinical trials, as well as any collaborations that we may enter into with third parties for our product candidates, and any unforeseen cash needs. As a result, our management will retain broad discretion over the allocation of the net proceeds of this offering.

Based on our planned use of our net proceeds from this offering as described above, we estimate that such funds, together with our existing cash and cash equivalents and short-term investments as of March 31, 2014, will enable us to complete our planned confirmatory Phase 2 clinical trial of PINTA 745 and our initial Phase 1 clinical study of STM 434 and fund our operations and capital expenditure requirements until at least the end of 2016. Pending our use of our net proceeds from this offering, we intend to invest the net proceeds in a variety of capital preservation investments, including short-term, investment-grade, interest-bearing instruments and US government securities.

DIVIDEND POLICY

We do not anticipate declaring or paying any cash dividends on our capital stock. Any future determination as to the declaration and payment of dividends, if any, will be at the discretion of our board of directors and will depend on then existing conditions, including our financial condition, operating results, contractual restrictions, capital requirements, business prospects and other factors our board of directors may deem relevant.

CAPITALIZATION

The following table sets forth our cash and cash equivalents, short-term available-for-sale investments and our capitalization as of March 31, 2014:

- on an actual basis;
- on a pro forma basis, giving effect to the repayment of notes receivable from a stockholder that took place in June 2014 and the automatic conversion of all outstanding shares of preferred stock as of March 31, 2014 into shares of our common stock immediately prior to the closing of this offering and the filing and effectiveness of our amended and restated certificate of incorporation in Delaware; and
- on a pro forma as adjusted basis to reflect, in addition to the pro forma adjustments set forth above, the sale of shares of common stock in this offering at an assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses.

You should read the information in this table together with the section titled “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and our combined and consolidated financial statements and related notes included elsewhere in this prospectus.

	As of March 31, 2014 (unaudited)		
	Actual	Pro Forma	Pro Forma As Adjusted[1]
	(in thousands, except share and per share data)		
Cash and cash equivalents	$ 39,754	$ 40,053	$
Short-term available-for-sale investments	22,277	22,277	
	$ 62,031	$ 62,330	$
Convertible preferred stock:			
Series A convertible preferred stock	$ 19,909	$ —	$
Series A-1 convertible preferred stock	2,768	—	
Series B convertible preferred stock	51,895	—	
Stockholders’ equity:			
Preferred stock, $0.0001 par value, no shares authorized, no shares issued and outstanding, actual; no shares issued and outstanding, pro forma and pro forma as adjusted	—	—	
Common stock, $0.0001 par value, shares issued and outstanding, actual; shares issued and outstanding, pro forma; shares issued and outstanding pro forma as adjusted	—		
Additional paid-in capital	5,538		
Notes receivable from stockholder	(299)	—	
Accumulated other comprehensive loss	(11)	(11)	
Accumulated deficit	(19,932)	(19,932)	
Total stockholders’ deficit	(14,704)		
Total capitalization	$ 59,868	$	$

(1) Each $1.00 increase (decrease) in the assumed initial public offering price of $ per share would increase (decrease) each of cash and cash equivalents, additional paid-in capital, total stockholders’ equity and total capitalization by approximately $ million, assuming the number of shares offered, as set forth on the cover page of this prospectus,

remains the same, and after deducting estimated underwriting discounts and commissions and estimated offering expenses. Similarly, each increase (decrease) of 1,000,000 shares in the number of shares of our common stock offered would increase (decrease) cash and cash equivalents, additional paid-in capital, total stockholders' equity and total capitalization by approximately $ million, assuming the assumed initial public offering price remains the same, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. The pro forma as adjusted information discussed above is illustrative only and will be adjusted based on the actual initial public offering price and other terms of this offering determined at pricing.

The outstanding share information in the table above is based on 18,724,086 shares of our common stock (including preferred stock on an as-converted basis) outstanding as of March 31, 2014, giving effect to our recapitalization, and excludes the following:

- 1,151,770 shares of common stock issuable upon settlement of RSUs outstanding as of March 31, 2014 pursuant to our 2012 Plans;
- shares of common stock issuable upon settlement of RSUs issued after March 31, 2014 under our 2014 Equity Incentive Plan, or 2014 Plan;
- shares of common stock to be reserved for future issuance under our 2014 Plan, as well as any automatic increases in the number of shares of common stock reserved for future issuance under this benefit plan; and
- shares of common stock to be reserved for issuance under our ESPP, to be effective in connection with this offering, as well as any automatic increases in the number of shares of common stock reserved for future issuance under this benefit plan.

DILUTION

If you invest in our common stock, your interest will be diluted to the extent of the difference between the initial public offering price per share of our common stock and the pro forma as adjusted net tangible book value per share of our common stock immediately after this offering.

Our historical net tangible book value as of March 31, 2014 was approximately $ million, or $ per share of common stock. Our historical net tangible book value is the amount of our total tangible assets less our liabilities and preferred stock that is not included within equity. Net historical tangible book value per share is our historical net tangible book value divided by the number of shares of common stock outstanding as of March 31, 2014. The pro forma net tangible book value of our common stock as of March 31, 2014, was $ million, or $ per share. Pro forma net tangible book value per share represents our total tangible assets less our total liabilities, divided by the number of outstanding shares of common stock, after giving effect to the automatic conversion of all outstanding shares of preferred stock as of March 31, 2014 into shares of common stock immediately prior to the closing of this offering.

After giving effect to (i) the automatic conversion of all outstanding shares of preferred stock as of March 31, 2014 into shares of common stock immediately prior to the closing of this offering and (ii) our receipt of the net proceeds from our sale of shares of common stock at an assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses, our pro forma as adjusted net tangible book value as of March 31, 2014 would have been approximately $ million, or $ per share. This represents an immediate increase in pro forma as adjusted net tangible book value of $ per share to our existing stockholders and an immediate dilution of $ per share to investors purchasing common stock in this offering.

The following table illustrates this dilution on a per share basis to new investors:

Assumed initial public offering price per share		$
Historical net tangible book value per share as of March 31, 2014	$	
Pro forma increase in net tangible book value per share as of March 31, 2014 attributable to the conversion of preferred stock		
Pro forma net tangible book value per share as of March 31, 2014, before giving effect to this offering		
Increase in pro forma net tangible book value per share attributable to new investors purchasing shares in this offering		
Pro forma as adjusted net tangible book value per share after giving effect to this offering		
Dilution in pro forma net tangible book value per share to new investors in this offering		$

Each $1.00 increase (decrease) in the assumed initial public offering price of $ per share would increase (decrease) the pro forma net tangible book value, as adjusted to give effect to this offering, by $ per share and the dilution to new investors by $ per share, assuming that the number of shares offered, as set forth on the cover page of this prospectus, remains the same, after deducting estimated underwriting discounts and commissions and estimated offering expenses. Similarly, each increase (decrease) of 1,000,000 shares in the number of shares of common stock offered would increase (decrease) the pro forma net tangible book value, as adjusted to give effect to this offering, by approximately $ per share and the dilution to new investors by $ per share, assuming the assumed initial public offering price remains the same and after deducting estimated

underwriting discounts and commissions and estimated offering expenses. If the underwriters exercise their option to purchase additional shares of common stock in full, the pro forma net tangible book value per share, as adjusted to give effect to this offering, would be $ per share, and the dilution in pro forma net tangible book value per share to investors in this offering would be $ per share.

The table below summarizes as of March 31, 2014, on a pro forma as adjusted basis described above, the number of shares of our common stock, the total consideration and the average price per share (i) paid to us by our existing stockholders and (ii) to be paid by new investors purchasing our common stock in this offering at an assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, before deducting estimated underwriting discounts and commissions and estimated offering expenses.

	Shares Purchased		Total Consideration		Average Price Per Share
	Number	Percent	Amount	Percent	
Existing stockholders	18,724,086	%	$75,281,635	%	$ 4.02
New investors		%		%	$
Totals		100.0%	$	100.0%	

If the underwriters exercise their option to purchase additional shares of our common stock in full, our existing stockholders would own % and our new investors would own % of the total number of shares of our common stock outstanding upon completion of this offering. In this event, the total consideration paid by our existing stockholders would be approximately $75.3 million, or %, and the total consideration paid by our new investors would be $ million, or %.

The total number of shares of our common stock reflected in the discussion and tables above is based on 18,724,086 shares of our common stock (including preferred stock on an as-converted basis) outstanding as of March 31, 2014, giving effect to our recapitalization, and excludes the following:

- 1,151,770 shares of common stock issuable upon settlement of RSUs outstanding as of March 31, 2014 pursuant to our 2012 Plans;
- shares of common stock issuable upon settlement of RSUs issued after March 31, 2014 under our 2014 Equity Incentive Plan, or 2014 Plan;
- shares of common stock to be reserved for future issuance under our 2014 Plan, as well as any automatic increases in the number of shares of common stock reserved for future issuance under this benefit plan; and
- shares of common stock to be reserved for issuance under our ESPP, to be effective in connection with this offering, as well as any automatic increases in the number of shares of common stock reserved for future issuance under this benefit plan.

To the extent that any outstanding RSUs vest and settle, options or RSUs are issued under our stock-based compensation plans or we issue additional shares of common stock in the future, there will be further dilution to investors participating in this offering. If all outstanding RSUs as of March 31, 2014 vested and settled, then our existing stockholders, including the holders of these RSUs, would own % and our new investors would own % of the total number of shares of our common stock and common stock outstanding upon the closing of this offering.

SELECTED COMBINED AND CONSOLIDATED FINANCIAL DATA

The following selected combined and consolidated financial data should be read in conjunction with the section titled "Management's Discussion and Analysis of Financial Condition and Results of Operations" as well as our audited combined financial statements and related notes included elsewhere in this prospectus. We have derived the summary combined statement of operations data for the period from August 22, 2012 (inception) to December 31, 2012 and the year ended December 31, 2013 from our audited combined financial statements included elsewhere in this prospectus. We have derived the summary combined and consolidated statements of operations data for the three months ended March 31, 2013 and 2014 and the period from August 22, 2012 (inception) to March 31, 2014 and our balance sheet data as of March 31, 2014 from our unaudited interim combined and consolidated financial statements included elsewhere in this prospectus. The unaudited interim combined and consolidated financial statements have been prepared on the same basis as the audited combined financial statements and reflect, in the opinion of management, all adjustments of a normal, recurring nature that are necessary for a fair presentation of the unaudited interim combined and consolidated financial statements. Our historical results are not necessarily indicative of the results to be expected in the future, and our interim results are not necessarily indicative of the results that should be expected for the full year or any other period.

	Period from August 22, 2012 (Inception) to December 31, 2012	Year ended December 31, 2013	Three months ended March 31, (unaudited)		Period from August 22, 2012 (Inception) to March 31, 2014 (unaudited)
			2013	2014	
	(in thousands, except share and per share information)				
Combined and Consolidated Statements of Operations and Comprehensive Loss Data:					
Expenses:					
Research and development	$ 241	$ 4,306	$ 354	$ 2,981	$ 7,528
Research and development costs paid to Amgen	—	553	—	—	553
In-process research and development acquired from Amgen	3,018	—	—	—	3,018
General and administrative	834	3,756	932	4,096	8,686
Total expense	4,093	8,615	1,286	7,077	19,785
Loss from operations	(4,093)	(8,615)	(1,286)	(7,077)	(19,785)
Interest income	—	12	2	6	18
Loss before provision for income taxes	(4,093)	(8,603)	(1,284)	(7,071)	(19,767)
Provision (benefit) for income taxes	17	170	14	(22)	165
Net loss incurred in the development stage	$ (4,110)	$ (8,773)	$(1,298)	$(7,049)	$ (19,932)

	Period from August 22, 2012 (Inception) to December 31, 2012	Year ended December 31, 2013	Three months ended March 31, (unaudited) 2013	2014	Period from August 22, 2012 (Inception) to March 31, 2014 (unaudited)
	(in thousands, except share and per share information)				
Other comprehensive loss, net of tax:					
Unrealized losses on investments	—	—	—	(11)	(11)
Other comprehensive loss	—	—	—	(11)	(11)
Comprehensive loss incurred in the development stage	$ (4,110)	$ (8,773)	$ (1,298)	$ (7,060)	$ (19,943)
Basic and diluted net loss per common share	$ (4.31)	$ (6.99)	(1.20)	(4.29)	
Weighted-average common shares outstanding used to compute basic and diluted net loss per common share	953,283	1,255,573	1,079,096	1,642,312	

	As of December 31, 2012	As of December 31, 2013	As of March 31, 2014 (unaudited)
		(in thousands)	
Combined and Consolidated Balance Sheets Data:			
Cash and cash equivalents	$ 4,207	$ 51,615	$ 39,754
Short-term available-for-sale investments	—	—	22,277
Working capital	2,940	50,284	59,503
Total assets	4,290	51,828	62,866
Convertible preferred stock	6,711	61,091	74,572
Accumulated deficit	(4,110)	(12,883)	(19,932)
Total stockholders' deficit	(3,727)	(11,017)	(14,704)

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

You should read the following discussion and analysis of our financial condition and results of operations together with the section of this prospectus titled "Selected Combined and Consolidated Financial Data" and our combined and consolidated financial statements and related notes included elsewhere in this prospectus. This discussion and other parts of this prospectus contain forward-looking statements that involve risk and uncertainties, such as statements of our plans, objectives, expectations and intentions. As a result of many factors, including those factors set forth in the "Risk Factors" section of this prospectus, our actual results could differ materially from the results described in or implied by the forward-looking statements contained in the following discussion and analysis.

Overview

We are a clinical-stage biopharmaceutical company focused on developing novel therapeutics for serious unmet medical needs, with an initial focus on muscle wasting conditions and oncology. Our product candidates are biologics targeting myostatin and activin, members of the TGF-ß protein superfamily, which play roles in the growth and maintenance of muscle and many other body tissues. Our lead product candidate, PINTA 745, is in a Phase 2 clinical trial for PEW in ESRD patients. Our second product candidate is STM 434, and we expect to commence a Phase 1 clinical study of STM 434 for ovarian cancer and other solid tumors in the second half of 2014. We have five additional molecules in preclinical development. We intend to license or acquire additional product candidates to develop and commercialize.

Our current product candidate portfolio was acquired through licensing arrangements with Amgen in exchange for convertible preferred stock and future milestone payments and royalties. Through these arrangements, we obtained licenses to patent rights and the ability to use certain proprietary know-how to develop and commercialize a portfolio of seven product candidates. The arrangement did not provide for the acquisition of employees, facilities or ongoing services. We are responsible for obtaining all regulatory approvals and developing commercial scale manufacturing processes to enable eventual commercialization of these product candidates. Under the terms of these agreements, we made an upfront payment of $250,000 and issued 800,000 shares of Series A-1 convertible preferred stock on a combined basis (7,200,000 shares, prior to giving effect to the recapitalization) to Amgen. We are also required to make additional payments of up to $86.0 million to Amgen based upon the achievement of certain development and regulatory approval milestones, as well as additional payments based on achievement of commercial milestones and future net sales of products resulting from development of these product candidates, if any. Of the $86.0 million, $14.0 million in potential payments relate to milestones for clinical trials.

We are considered a development-stage company under US generally accepted accounting principles, or GAAP, and have only a limited operating history. Since our inception in 2012, we have devoted substantially all of our resources to identify, acquire and develop our product candidates, including conducting preclinical and clinical studies and providing general and administrative support for these operations. We have funded our operations to date primarily from the issuance and sale of convertible preferred stock.

We have never generated revenues and have incurred net losses since inception. Our net losses were $8.8 million and $7.0 million for the year ended December 31, 2013, and the three months ended March 31, 2014, respectively. As of March 31, 2014, we had an accumulated deficit of $19.9 million. Substantially all of our net losses have resulted from costs incurred in connection with our research and development programs and from general and administrative expenses associated with our operations. Our cash and short-term available-for-sale investment balances at March 31, 2014 totaled $62.0 million, which we intend to use to fund our losses in the near term.

Financial Overview

Basis of Presentation and Recapitalization

Atara, Nina, Pinta and Santa Maria were incorporated in August 2012. Atara was formed as a management company with the sole purpose of providing management, financial and administrative services for Nina, Pinta and Santa Maria. Since inception, Atara, Nina, Pinta and Santa Maria have been under common management and common ownership for all periods and as of all dates prior to our recapitalization on March 31, 2014, we have presented the results of operations and financial condition of the four companies on a combined basis. The combined financial statements include the accounts of the four individual companies since inception, with intercompany transactions eliminated.

On March 31, 2014, we implemented a recapitalization in which (a) all the outstanding shares of common stock of Atara were cancelled and forfeited by existing stockholders and (b) the stockholders of Nina, Pinta and Santa Maria exchanged their existing common and convertible preferred stock for newly-issued shares of Atara, in the same proportions and with the same rights and privileges as the outstanding capital stock of Nina, Pinta and Santa Maria, on a collective nine-for-one basis. Atara assumed the separate equity incentive plans sponsored by Nina, Pinta and Santa Maria and all outstanding RSUs and restricted stock awards granted under such plans. At the time of RSU settlement, each employee or consultant will receive one share of common stock of Atara for three RSUs in each of Nina, Pinta, and Santa Maria (collectively, a nine-for-one exchange). We refer to this transaction as our recapitalization. As a result of the recapitalization, Nina, Pinta and Santa Maria became wholly owned subsidiaries of Atara effective March 31, 2014. The recapitalization was accounted for as a combination of businesses under common control and the assets and liabilities of Nina, Pinta and Santa Maria were recorded by Atara at their historical carrying amounts on March 31, 2014. Beginning March 31, 2014, our financial statements are presented on a consolidated basis, with all intercompany transactions eliminated. Except as otherwise noted, all share and per share amounts presented in this “Management’s Discussion and Analysis of Financial Condition and Results of Operations” give effect to the recapitalization.

Revenues

To date, we have not generated any revenues. We do not expect to receive any revenues from any product candidates that we develop until we obtain regulatory approval and commercialize our products or enter into collaborative agreements with third parties.

Research and Development Expenses

The largest component of our total operating expenses since inception has been our investment in research and development activities, including the preclinical and clinical development of our product candidates. Research and development expenses consist of costs incurred in performing research and development activities, including compensation and benefits for research and development employees, including stock-based compensation, an allocation of facility and overhead expenses, expenses incurred under agreements with contract research organizations and investigative sites that conduct clinical trials and preclinical studies, the costs of acquiring and manufacturing clinical trial materials and other supplies and costs associated with product development efforts, preclinical activities and regulatory operations. Research and development costs are expensed as incurred.

We plan to increase our research and development expenses for the foreseeable future as we continue the development of our product candidates. Our current planned research and development activities include the following:

- increased enrollment and completion of our Phase 2 clinical trial of PINTA 745;
- commencement of our Phase 1 clinical study of STM 434; and

- process development and manufacturing of drug supply for ATA 842 to support IND-enabling studies.

In addition to our product candidates that are in clinical development, we believe it is important to continue our substantial investment in a diverse pipeline of new product candidates to continue to build the value of our product candidate pipeline and our business. We plan to continue to advance our most promising early product candidates into preclinical development with the objective to advance these early-stage programs to human clinical studies over the next several years.

Our expenditures on current and future preclinical and clinical development programs are subject to numerous uncertainties in timing and cost to completion. The duration, costs, and timing of clinical trials and development of our product candidates will depend on a variety of factors, including:

- the scope, rate of progress, and expenses of our ongoing as well as any additional clinical trials and other research and development activities;
- future clinical trial results;
- uncertainties in clinical trial enrollment rates or drop-out or discontinuation rates of patients;
- potential additional safety monitoring or other studies requested by regulatory agencies;
- significant and changing government regulation; and
- the timing and receipt of any regulatory approvals.

The process of conducting the necessary clinical research to obtain FDA approval is costly and time consuming and the successful development of our product candidates is highly uncertain. The risks and uncertainties associated with our research and development projects are discussed more fully in the section of this prospectus titled “Risk Factors.” As a result of these risks and uncertainties, we are unable to determine with any degree of certainty the duration and completion costs of our research and development projects, or if, when, or to what extent we will generate revenues from the commercialization and sale of any of our product candidates that obtain regulatory approval. We may never succeed in achieving regulatory approval for any of our product candidates.

In-process Research and Development Acquired from Amgen

In-process research and development expenses acquired from Amgen consist of the value of the Series A-1 convertible preferred stock and the upfront payment of $250,000, which was the total consideration paid for our Amgen licenses. As the licensed compounds are in an early stage of development and the underlying technology has no alternative future uses, the total consideration was expensed in 2012.

General and Administrative Expenses

General and administrative expenses consist primarily of personnel costs, allocated facilities costs, and other expenses for outside professional services, including legal, human resources, audit and accounting services. Personnel costs consist of salaries, benefits and stock-based compensation. We anticipate that our general and administrative expenses will continue to increase in the future as we increase our headcount to support our continued research and development and potential commercialization of our product candidates. We also anticipate increased expenses related to audit, legal, regulatory, and tax-related services associated with maintaining compliance with Nasdaq listing and SEC requirements, director and officer insurance premiums and investor relations costs associated with being a public company.

Interest Income

Interest income consists of interest earned on our cash, cash equivalents and marketable securities as well as interest on notes receivables issued to one of our employees related to the purchase of restricted common stock.

Critical Accounting Policies and Significant Judgments and Estimates

This discussion and analysis of our financial condition and results of operations is based on our financial statements, which have been prepared in accordance with GAAP. The preparation of our financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements, as well as the reported expenses incurred during the reporting periods. Our estimates are based on our historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

Accrued Research and Development Expenses

As part of the process of preparing our financial statements, we are required to estimate and accrue expenses, the largest of which is related to accrued research and development expenses. This process involves reviewing contracts and purchase orders, identifying services that have been performed on our behalf, and estimating the level of service performed and the associated cost incurred for the service when we have not yet been invoiced or otherwise notified of the actual costs.

Costs for preclinical study and clinical trial activities are recognized based on an evaluation of our vendors' progress towards completion of specific tasks, using data such as patient enrollment, clinical site activations or information provided to us by our vendors regarding their actual costs incurred. Payments for these activities are based on the terms of individual contracts and payment timing may differ significantly from the period in which the services were performed. We determine accrual estimates through reports from and discussions with applicable personnel and outside service providers as to the progress or state of completion of trials, or the services completed. Our estimates of accrued expenses as of each balance sheet date are based on the facts and circumstances known at the time. For the period from August 22, 2012 (inception) to December 31, 2013 and to March 31, 2014, there have been no material changes to our estimates of accrued research and development expenses. Costs that are paid in advance of performance are deferred as a prepaid expense and amortized over the service period as the services are provided.

Estimated Fair Value of Series A-1 Convertible Preferred Stock

In consideration for the licenses of our product candidate portfolio, we issued 800,000 shares (after giving effect to the recapitalization) of Series A-1 convertible preferred stock and paid $250,000 to Amgen. We estimated the fair value of our Series A-1 preferred stock to be $2.8 million by using the option pricing model, or OPM, backsolve method. OPM treats the rights of the holders of shares of preferred and common stock as equivalent to call options on any value of the enterprise above certain break points of value based upon the liquidation preferences of the holders of preferred stock, as well as their rights to participation and conversion. Thus, the estimated value of the Series A-1 convertible preferred stock can be determined by estimating the value of its portion of each of these call option rights. The OPM backsolve method derives the implied equity value of a company from a recent transaction involving the company's own securities issued on an arm's-length basis. This implied equity value is then allocated to each part of our capital structure, including our Series A-1 convertible preferred stock and common stock. Significant assumptions used at the time of valuation included an estimated volatility of 53.3%, a risk free interest rate of 0.28% and time to a liquidity event of 2.25 years.

Stock-based Compensation

Because our common stock is not currently publicly traded, our board of directors, with the assistance of management, uses significant judgment to estimate the fair value of our common stock. Following the closing of this offering, the fair value of our common stock will be determined based on the closing price of our common stock on The Nasdaq Global Market.

We account for stock-based compensation expense, including the expense of restricted stock awards and RSUs, based on the fair values of the equity instruments issued. The fair value is determined on the measurement date, which is generally the date of grant for employee awards and the date when the service performance is completed for non-employees. The fair value for our restricted stock awards is their intrinsic value, which is the difference between the fair value of underlying stock at the measurement date and the purchase price. The fair value of our RSUs is the fair value of the underlying stock at the measurement date. Stock-based compensation expense for awards with time-based vesting criteria is recognized as expense on a straight-line basis over the requisite service period for employees and on an accelerated graded vesting basis for non-employees. For employees' awards with performance-based vesting criteria, we assess the probability of the achievement of the performance conditions at the end of each reporting period and recognize the share-based compensation costs when it becomes probable that the performance conditions will be met. For non-employees' awards with performance-based vesting criteria, we assess all possible outcomes at the end of each reporting period and recognize the lowest aggregate fair value in the range of possible outcomes. The lowest value in the range of possible outcomes may be zero. For awards that are subject to both service and performance conditions, no expense is recognized until it is probable that performance conditions will be met.

Prior to our recapitalization, we issued restricted stock awards and RSUs for common stock of Nina, Pinta and Santa Maria to individuals who were employed by or served as consultants of Atara and provided services to Nina, Pinta and Santa Maria through Atara. Because these individuals were not employees of Nina, Pinta or Santa Maria, as these entities were not subsidiaries of Atara until the recapitalization, all of our restricted stock awards and RSUs issued through the date of the recapitalization are deemed to have been issued to non-employees. As such, we determined the estimated fair value of the underlying common stock at the end of each period, as the services were performed. The estimated fair value of our common stock was determined at each valuation date in accordance with the guidelines outlined in the American Institute of Certified Public Accountants Practice Aid, *Valuation of Privately-Held-Company Equity Securities Issued as Compensation*. Our board of directors, with the assistance of management, developed these valuations using significant judgment and taking into account numerous factors, including developments at our company, market conditions and contemporaneous independent third-party valuations with effective dates as of December 31, 2012, March 5, 2013, November 25, 2013, January 8, 2014 and March 31, 2014.

For each valuation date through January 8, 2014, we determined the fair value of our common stock by using the OPM backsolve method. We adjusted our estimates of fair value between valuation periods based upon changes in overall market conditions or achievement of milestones.

The increased probability of an initial public offering was taken into consideration in the March 31, 2014 valuation, which is a critical factor contributing to the increase in the fair value of our common stock as of that date. For purposes of the March 31, 2014 valuation, a hybrid method was used to determine the fair value of our common stock, which incorporated use of both the probability-weighted return methodology, or PWERM, and the OPM. The PWERM is a scenario-based analysis that estimates the value per share based on the probability-weighted present value of expected future investment returns, considering each of the possible outcomes available to us, as well as the economic and control rights of each share class. In the hybrid method, the OPM is used to estimate the allocation

of value within one or more of PWERM scenarios. The hybrid method can be a useful alternative to explicitly modeling all PWERM scenarios in situations when the company has transparency into one or more near-term exits but is unsure about what will occur if the current plans fall through. The hybrid model was selected at this time for the reasons described above relating to our plans for a potential initial public offering.

Under the hybrid method, the OPM was used to allocate the equity value considering the probability that an initial public offering does not occur in the near-term. Under this scenario, private transactions in our Series B shares and a discounted cash flow analysis were utilized to determine the fair value of the company. This value was then allocated using an OPM to determine the fair value of our shares under this scenario. The PWERM scenarios in the hybrid method consider three near-term exit events. The first scenario assumed we would complete an initial public offering within four months, the second scenario assumed we would complete an initial public offering within 13 months and the third scenario assumed we would complete an initial public offering within 21 months. The estimated time to liquidity was based on the probability weighted time of a liquidity event considering the three scenarios.

Significant assumptions for each valuation include:

	Common Stock Value[1]	Volatility[2]	Risk-free Rate	Years to Exit	Discount for Lack of Marketability
December 31, 2012	$ 1.23	53.3%	0.28%	2.25	29.7%
March 5, 2013	$ 1.26	54.5%	0.25%	2.00	29.7%
November 25, 2013	$ 1.97	54.2%	0.26%	1.75	26.9%
January 8, 2014	$ 2.06	53.2%	0.32%	1.63	25.5%
March 31, 2014[3]	$ 6.61	56.0%	0.14%	1.03	21.8%

(1) Common stock value is presented giving effect to the recapitalization.
(2) The computation of expected volatility is based on the historical volatility of a representative group of public biotechnology and life sciences companies with similar characteristics, including early stage of product development and therapeutic focus.
(3) Derived by using OPM and PWERM in the hybrid method using multiple scenarios.

In connection with the recapitalization, we assumed all outstanding restricted stock awards and RSUs granted by Nina, Pinta and Santa Maria. At the date of the recapitalization, RSUs and restricted stock awards issued by Nina, Pinta and Santa Maria to Atara employees became employee awards for accounting purposes, and the awards' grant dates were established as the recapitalization date.

The RSUs we have granted have a time-based service condition and a liquidity-based performance condition, and will vest when both conditions are met. We have determined that the liquidity-based condition is not probable of occurring and recorded no compensation expense related to the RSUs during the period from August 22, 2012 (inception) to March 31, 2014. As of March 31, 2014, there was approximately $7,647,788 of unrecognized stock-based compensation expense related to nonvested RSUs. Assuming an initial public offering had occurred on March 31, 2014, $2,253,569 of this stock-based compensation expense would have been recognized in our statement of operations and comprehensive loss for the three months ended March 31, 2014 and $5,394,219 would be recognized over the remaining service periods through 2018.

Income Taxes

We recognize deferred income taxes for temporary differences between the basis of assets and liabilities for financial statement and income tax purposes. We periodically evaluate the positive and negative evidence bearing upon realizability of our deferred tax assets. Based upon the weight of available evidence, which includes our historical operating performance, reported cumulative net

losses since inception and difficulty in accurately forecasting our future results, we maintained a full valuation allowance on the net deferred tax assets for all periods presented. We intend to maintain a full valuation allowance on the US deferred tax assets for the foreseeable future until sufficient positive evidence exists to support reversal of the valuation allowance.

At December 31, 2012 and 2013, we had federal and state net operating loss carryforwards of approximately $0.8 million and $7.2 million, respectively, which, if not utilized, begin to expire in various amounts beginning in the year 2032.

Under Section 382 of the Code, our ability to utilize net operating loss carryforwards or other tax attributes, such as research tax credits, in any taxable year may be limited if we have experienced an “ownership change.” Generally, a Section 382 “ownership change” occurs if one or more stockholders or groups of stockholders who owns at least 5% of a corporation’s stock increases its ownership by more than 50 percentage points over its lowest ownership percentage within a specified testing period. Similar rules may apply under state tax laws. During 2014, we completed a Section 382 study of transactions in our stock through December 31, 2013.

The study concluded that we have experienced at least one ownership change since inception and that our utilization of net operating loss carryforwards will be subject to annual limitations. These results are reflected in the above carryforward amounts. Our ability to utilize our net operating loss carryforwards may be further limited as a result of subsequent ownership changes including potential changes in connection with or after our proposed initial public offering. Further, other provisions of the Code may limit our ability to utilize federal net operating losses incurred before the recapitalization to offset income or gain realized after the recapitalization unless such income or gain is realized by the same entity that originally incurred such losses. All such limitations could result in the expiration of carryforwards before they are utilized.

We had no unrecognized tax benefits as of December 31, 2012 and 2013. Our policy is to recognize interest and penalties related to income taxes as a component of income tax expense. No interest and penalties related to income taxes have been recognized in the statements of operations and comprehensive loss in 2012 and 2013.

Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is a process to provide reasonable assurance regarding the reliability of our financial reporting and the preparation of financial statements for external purposes in accordance with GAAP. Internal control over financial reporting includes: maintaining records that in reasonable detail accurately and fairly reflect our transactions; providing reasonable assurance that transactions are recorded as necessary for preparation of our financial statements; providing reasonable assurance that receipts and expenditures of our assets are made in accordance with management’s authorization; and providing reasonable assurance that unauthorized acquisition, use or disposition of our assets that could have a material effect on our financial statements would be prevented or detected on a timely basis. Because of its inherent limitations, internal control over financial reporting is not intended to provide absolute assurance that a misstatement of our financial statements would be prevented or detected. Furthermore, our controls and procedures can be circumvented by the individual acts of some persons, by collusion of two or more people or by management override of the controls or procedures, and misstatements due to error or fraud may occur and not be detected on a timely basis.

Our management has determined that we had a material weakness in our internal control over financial reporting as of December 31, 2012 and 2013 relating to the design and operation of our

closing and financial reporting processes. We have concluded that this material weakness in our internal control over financial reporting is due to the fact that we do not yet have the appropriate resources with the appropriate level of experience and technical expertise to oversee our closing and financial reporting processes.

In order to remediate this material weakness, we are taking the following actions:

- we have hired a full-time controller and transitioned Mr. McGrath from a consulting role to a full-time chief financial officer role;
- we are actively seeking additional accounting and finance staff members to augment our current staff and to improve the effectiveness of our closing and financial reporting processes; and
- we are formalizing our accounting policies and internal controls documentation and strengthening supervisory reviews by our management.

In connection with the initiatives we are implementing to remediate the material weakness, we expect to incur additional compensation expense as we hire additional financial accounting staff and improve our accounting and financial reporting systems. The initiatives we are implementing are subject to continued management review supported by confirmation and testing, as well as audit committee oversight. We expect to complete the measures above as soon as practicable upon the completion of this offering and will continue to implement measures to remedy our internal control deficiencies in order to meet the deadline imposed by Section 404 of the Sarbanes-Oxley Act of 2002. However, we cannot be certain that the measures we have taken or might take in the future will ensure that we will maintain adequate controls over our financial processes and reporting in the future.

Notwithstanding the material weakness that existed as of December 31, 2012 and 2013, our management has concluded that the combined and consolidated financial statements included elsewhere in this prospectus present fairly, in all material respects, our financial position, results of operation and cash flows in conformity with GAAP.

If we fail to fully remediate this material weakness or fail to maintain effective internal controls in the future, it could result in a material misstatement of our financial statements that would not be prevented or detected on a timely basis, which could cause investors to lose confidence in our financial information or cause our stock price to decline. Our independent registered public accounting firm has not assessed the effectiveness of our internal control over financial reporting and, under the JOBS Act, will not be required to provide an attestation report on the effectiveness of our internal control over financial reporting so long as we qualify as an “emerging growth company,” which may increase the risk that weaknesses or deficiencies in our internal control over financial reporting go undetected.

Emerging Growth Company Status

We are an “emerging growth company” as defined in the JOBS Act, and therefore we may take advantage of certain exemptions from various public company reporting requirements. As an “emerging growth company:”

- We will present no more than two years of audited financial statements and no more than two years of related management’s discussion and analysis of financial condition and results of operations;
- We will avail ourselves of the exemption from the requirement to obtain an attestation and report from our auditors on the assessment of our internal control over financial reporting pursuant to the Sarbanes-Oxley Act;
- We will provide less extensive disclosure about our executive compensation arrangements; and

- We will not require stockholder non-binding advisory votes on executive compensation or golden parachute arrangements.

However, we are choosing to irrevocably opt out of the extended transition periods available under the JOBS Act for complying with new or revised accounting standards. We will remain an "emerging growth company" for up to five years, although we will cease to be an "emerging growth company" upon the earliest of: (1) the last day of the fiscal year following the fifth anniversary of this offering, (2) the last day of the first fiscal year in which our annual gross revenues are $1 billion or more, (3) the date on which we have, during the previous rolling three-year period, issued more than $1 billion in non-convertible debt securities, and (4) the date on which we are deemed to be a "large accelerated filer" as defined in the Exchange Act.

Results of Operations

Comparison of the Period from August 22, 2012 (Inception) to December 31, 2012 and Year Ended December 31, 2013

Research and development expenses

	Period from August 22, 2012 (Inception) to December 31, 2012	Year ended December 31, 2013	Increase (Decrease)
		(in thousands)	
Research and development	$ 241	$ 4,306	$ 4,065
Research and development costs paid to Amgen	—	553	553
Total	$ 241	$ 4,859	$ 4,618

Research and development expenses increased during the year ended December 31, 2013 compared to the period ended December 31, 2012 and consisted of the following costs by program:

	Period from August 22, 2012 (Inception) to December 31, 2012	Year ended December 31, 2013
	(in thousands)	
PINTA 745	$ 15	$ 1,658
STM 434	66	1,936
ATA 842	—	16
Employee and overhead cost	160	1,249
Total	$ 241	$ 4,859

PINTA 745 costs increased by $1.6 million in 2013 compared to the 2012 period primarily due to a $0.4 million increase in outside consultants' costs and $0.7 million of direct costs to support the Phase 2 clinical trial that commenced during the fourth quarter of 2013. In addition, as part of our licenses with Amgen, we purchased clinical drug and placebo supplies for $0.6 million, which we will use in our Phase 2 trial. In the future, we anticipate that costs related to the future clinical drug supply will increase as we contract with a third party supplier to manufacture these materials.

STM 434 program costs increased by $1.9 million in 2013 compared to the 2012 period primarily due to $1.5 million in outside manufacturing costs for clinical drug supply and approximately $0.4 million of outside consultants' costs related to the Phase 1 clinical study of STM 434 in 2014.

Employee and overhead costs increased by $1.1 million in 2013 as compared to the 2012 period as a result of increased headcount, higher stock-based compensation costs and a full year of expenses in 2013, compared to only four months in 2012.

In-process research and development acquired from Amgen

	Period from August 22, 2012 (Inception) to December 31, 2012	Year ended December 31, 2013	Increase (Decrease)
		(in thousands)	
In-process research and development acquired from Amgen	$ 3,018	—	($ 3,018)

Licenses acquired from Amgen related to compounds in early stages of development that had no alternative future use. We recognized total consideration for these licenses of $3.0 million in acquired in-process research and development expenses in the period from August 22, 2012 (inception) to December 31, 2012.

General and administrative expenses

	Period from August 22, 2012 (Inception) to December 31, 2012	Year ended December 31, 2013	Increase (Decrease)
		(in thousands)	
General and administrative	$ 834	$ 3,756	$ 2,922

General and administrative expenses increased in 2013 compared to the 2012 period primarily due to a $1.2 million increase in stock-based compensation costs, $0.8 million of legal fees associated with patent filings and maintenance and $0.5 million of additional personnel costs. Personnel costs and stock-based compensation costs were higher in 2013 due to increased headcount and a full year of expenses in 2013, compared to only four months in 2012.

Interest income

Interest income consists primarily of interest earned on cash and cash equivalents and remained relatively low in 2013.

Comparison of the Three Months Ended March 31, 2013 and 2014

Research and development expenses

	Three months ended March 31,		Increase (Decrease)
	2013	2014	
		(in thousands)	
Research and development	$ 354	$ 2,981	$ 2,627

Research and development expenses increased during the three months ended March 31, 2014 compared to the same period in 2013 and consisted of the following costs by program:

	Three months ended March 31,	
	2013	2014
	(in thousands)	
PINTA 745	$ 76	$ 525
STM 434	100	1,317
ATA 842	—	12
Employee and overhead cost	178	1,127
Total	$ 354	$ 2,981

PINTA 745 costs increased by $0.4 million in the three months ended March 31, 2014 compared to the quarter ended March 31, 2013 due primarily to a $0.5 million increase in outside consultants' costs to support the Phase 2 clinical trial that commenced during the fourth quarter of 2013.

STM 434 program costs increased by $1.2 million in the three months ended March 31, 2014 compared to the quarter ended March 31, 2013 due to $0.9 million in increased outside manufacturing costs for clinical drug supply and approximately $0.2 million of increased outside consultants' costs related to the upcoming Phase 1 clinical study of STM 434, which is expected to commence in the second half of 2014.

Employee and overhead costs increased by $0.9 million in 2014 as compared to the 2013 quarter as a result of increased payroll-related costs of $0.2 million resulting from increased headcount and higher stock-based compensation costs of $0.7 million.

General and administrative expenses

	Three months ended March 31,		Increase (Decrease)
	2013	2014	
	(in thousands)		
General and administrative	$ 932	$ 4,096	$ 3,164

General and administrative expenses increased in the three months ended March 31, 2014 compared to the quarter ended March 31, 2013 due to a $2.3 million increase in stock-based compensation costs, $0.6 million of increased legal and accounting fees associated with the audit of our financial statements and corporate costs in advance of our initial public offering and $0.2 million of additional payroll-related costs. Personnel costs and stock-based compensation costs were higher in the three months ended March 31, 2014 compared to the same period in 2013 due to increased headcount.

Liquidity and Capital Resources

We have incurred cumulative losses and negative cash flows from operations since our inception in 2012, and we had an accumulated deficit of $12.9 million as of December 31, 2013 and $19.9 million as of March 31, 2014. It will be several years, if ever, before we have a product candidate ready for commercialization, and we anticipate that we will continue to incur losses for at least the next several years. We expect that our research and development and general and administrative expenses will continue to increase and, as a result, we will need additional capital to fund our operations, which we may raise through a combination of equity offerings, debt financings, other third-party funding, marketing and distribution arrangements and other collaborations, strategic alliances and licensing arrangements.

In January 2014, we completed the sale and issuance of additional shares of Series B convertible preferred stock with gross proceeds of $13.5 million. Cash in excess of immediate requirements is invested in accordance with our investment policy, primarily with a view to liquidity and capital preservation. Currently, our cash and cash equivalents and short-term investments are held in bank and custodial accounts and consist of money market mutual funds, corporate bonds and commercial paper.

Working capital was $2.9 million, $50.3 million and $59.5 million as of December 31, 2012, December 31, 2013 and March 31, 2014, respectively. Included in working capital were cash, cash equivalents, and short-term investments of $4.2 million, $51.6 million and $62.0 million as of December 31, 2012, December 31, 2013 and March 31, 2014, respectively.

Our cash, cash equivalents and short-term investments balances were as follows:

	December 31,		March 31,
	2012	2013	2014
	(in thousands)		
Cash and cash equivalents	$4,207	$51,615	$39,754
Short-term available-for-sale investments	—	—	22,277
Total cash and cash equivalents and short-term available-for-sale investments	$4,207	$51,615	$62,031

Cash Flows

Comparison of the Period from August 22, 2012 (Inception) to December 31, 2012 and the Year Ended December 31, 2013

The following table details the primary sources and uses of cash for each of the periods set forth below:

	Period from August 22, 2012 (Inception) to December 31, 2012	Year ended December 31, 2013
	(in thousands)	
Net cash provided by (used in):		
Operating activities	$ (825)	$ (5,966)
Investing activities	(9)	(3)
Financing activities	5,041	53,377
Net increase in cash and cash equivalents	$ 4,207	$ 47,408

Operating activities

For the period from August 22, 2012 (inception) to December 31, 2012 and the year ended 2013, we used $0.8 million and $6.0 million of net cash in operating activities, respectively. The $5.1 million increase in cash used in operating activities was primarily due to the increase in combined net loss from 2012 to 2013.

Investing activities

For the period from August 22, 2012 (inception) to December 31, 2012 and the year ended 2013, net cash used in investing activities consisted of costs related to the purchase of property and equipment.

Financing activities

Net cash provided by financing activities for the period from August 22, 2012 (inception) to December 31, 2012 was $5.0 million, consisting of proceeds from the sale of shares of Series A

convertible preferred stock and common stock. Net cash provided by financing activities for the year ended December 31, 2013 was $53.4 million, consisting of proceeds from the sale of shares of Series A and Series B convertible preferred stock, net of offering costs.

Comparison of the Three Months Ended March 31, 2013 and 2014

The following table details the primary sources and uses of cash for each of the periods set forth below:

	Three months ended March 31,	
	2013	2014
	(in thousands)	
Net cash provided by (used in):		
Operating activities	$ (729)	$ (2,917)
Investing activities	—	(22,415)
Financing activities	14,963	13,471
Net increase (decrease) in cash and cash equivalents	$14,234	$(11,861)

Operating activities

For the three months ended March 31, 2013 and 2014, we used $0.7 million and $2.9 million of net cash in operating activities, respectively. The $2.2 million increase in cash used in operating activities was primarily due to the increase in net loss from the quarterly periods in 2013 to 2014 of $5.8 million, offset in part by a $3.0 million increase in stock-based compensation for the 2014 period.

Investing activities

Net cash used in investing activities consisted primarily of $22.4 million invested in short-term available-for-sale securities purchased during the first quarter of 2014.

Financing activities

Net cash provided by financing activities for the three months ended March 31, 2013 was $15.0 million, consisting of proceeds from the sale of shares of Series A convertible preferred stock net of offering costs. Net cash provided by financing activities for the three months ended March 31, 2014 was $13.5 million, consisting primarily of proceeds from the sale of shares of Series B convertible preferred stock, net of offering costs.

Operating Capital Requirements and Plan of Operations

To date, we have not generated any revenue from product sales. We do not know when, or if, we will generate any revenue from product sales. We do not expect to generate significant revenue from product sales unless and until we obtain regulatory approval of and commercialize one of our current or future product candidates. We anticipate that we will continue to generate losses for the foreseeable future, and we expect the losses to increase as we continue the development of and seek regulatory approvals for our product candidates, and begin to commercialize any approved products. We are subject to all of the risks incident in the development of new products, and we may encounter unforeseen expenses, difficulties, complications, delays and other unknown factors that may adversely affect our business. Upon the closing of this offering, we expect to incur additional costs associated with operating as a public company and we anticipate that we will need substantial additional funding in connection with our continuing operations.

We expect that our existing cash and cash equivalents, excluding the proceeds from this offering, will be sufficient to enable us to complete planned preclinical and clinical trials for our lead product candidates through at least the end of 2015. In order to complete the process of obtaining regulatory approval for our lead product candidates and to build the sales, marketing and distribution infrastructure that we believe will be necessary to commercialize our lead product candidates, if approved, we will require substantial additional funding.

We have based our projections of operating capital requirements on assumptions that may prove to be incorrect and we may use all of our available capital resources sooner than we expect. Because of the numerous risks and uncertainties associated with research, development and commercialization of pharmaceutical products, we are unable to estimate the exact amount of our operating capital requirements. Our future funding requirements will depend on many factors, including, but not limited to:

- the timing and costs of our planned clinical trials for our product candidates;
- the timing and costs of our planned preclinical studies of our product candidates;
- our success in establishing and scaling commercial manufacturing capabilities;
- the number and characteristics of product candidates that we pursue;
- the outcome, timing and costs of seeking regulatory approvals;
- subject to receipt of regulatory approval, revenues received from commercial sales of our product candidates;
- the terms and timing of any future collaborations, licensing, consulting or other arrangements that we may establish;
- the amount and timing of any payments we may be required to make in connection with the licensing, filing, prosecution, maintenance, defense and enforcement of any patents or patent applications or other intellectual property rights; and
- the extent to which we in-license or acquire other products and technologies.

Contractual Obligations and Commitments

The following table summarizes our contractual obligations at December 31, 2013:

	Total	Less than 1 Year	1 to 3 Years	3 to 5 Years	More than 5 Years
			(in thousands)		
Operating lease obligations[1]	$56	$ 55	$ 1	—	—

(1) We lease office and laboratory space in Westlake Village, California and Brisbane, California under noncancelable operating leases that expire in October 2014 and January 2015, respectively.

Contingent contractual obligations

Under the terms of our license agreements with Amgen, we are obligated to make additional milestone payments to Amgen of up to $86.0 million upon the achievement of certain development and regulatory approval milestones. Of these milestone payments, $14.0 million relates to milestones for clinical trials. The remaining $72.0 million relates to milestones for regulatory approvals in various territories and are anticipated to be made no earlier than 2017. Thereafter, we are obligated to make tiered payments based on achievement of commercial milestones based upon net sales levels. The maximum payments would be $206.0 million based on sales of over $1 billion for each of three products in a calendar year. We are also obligated to pay mid-single-digit percentage tiered royalties

on future net sales of products which are developed and approved as defined by the agreements. Our royalty obligations as to a particular licensed product will be payable, on a country-by-country and product-by-product basis, until the later of (a) the date of expiration of the last to expire valid claim within the licensed patents that covers the manufacture, use or sale, offer to sell, or import of such licensed product by us or a sublicense in such country, (b) loss of regulatory exclusivity or (c) 10 years after the first commercial sale of the applicable licensed product in the applicable country. As of December 31, 2013, there were no outstanding obligations due to Amgen. We expect to make a $1.0 million milestone payment in the second quarter of 2014 relating to the opening of the IND for STM 434.

In accordance with terms of the agreements, we use commercially reasonable efforts to pay costs related to the preparation, filing, prosecution, defense and maintenance of the patents covered by the license agreements. In 2012 and 2013, we incurred expenses of $0.1 million and $0.8 million related to the preparation, filing and maintenance of patents and patent applications.

Off-Balance Sheet Arrangements

We did not have during the periods presented, and we do not currently have, any off-balance sheet arrangements, as defined in the rules and regulations of the SEC.

Quantitative and Qualitative Disclosures about Market Risks

We are exposed to market risk related to changes in interest rates. As of December 31, 2012, December 31, 2013, and March 31, 2014 we had cash and cash equivalents and short-term available-for-sale investments of $4.2 million, $51.6 million, and $62.0 million, respectively. Our primary exposure to market risk is interest rate sensitivity, which is affected by changes in the general level of US interest rates, particularly because our investments are in short-term securities. Our available-for-sale securities are subject to interest rate risk and will fall in value if market interest rates increase. Due to the short-term duration of our investment portfolio and the low risk profile of our investments, an immediate 10% increase in interest rates would not have a material effect on the fair market value of our portfolio.

BUSINESS

Overview

We are a clinical-stage biopharmaceutical company focused on developing novel therapeutics for serious unmet medical needs, with an initial focus on muscle wasting conditions and oncology. Our product candidates are biologics targeting myostatin and activin, members of the TGF-ß protein superfamily, which play roles in the growth and maintenance of muscle and many other body tissues. Our lead product candidate, PINTA 745, is in a Phase 2 clinical trial for PEW in ESRD patients. Our second product candidate is STM 434, and we expect to enter a Phase 1 clinical study of STM 434 for ovarian cancer and other solid tumors in the second half of 2014. We have five additional molecules in preclinical development. We intend to license or acquire additional product candidates to develop and commercialize.

Our lead product candidate, PINTA 745, is a peptibody that binds to and inhibits myostatin, a protein that down regulates muscle growth and maintenance. In a Phase 1 study, PINTA 745 was found to increase muscle mass compared to placebo after one month of weekly dosing, an increase that was statistically significant, indicating that it is more likely than not that the benefit observed in the study was due to drug treatment rather than chance. We are enrolling a US-based Phase 2 clinical trial to further establish the role of PINTA 745 in building muscle mass, as well as to collect data from corresponding functional muscle tests. This trial is being conducted in patients with ESRD who are also suffering from PEW.

PEW is a major complication of ESRD. A recent study we completed with DaVita Clinical Research, a division of DaVita Healthcare Partners Inc., concluded that more than half of DaVita's dialysis population meet the conditions for PEW and, in comparison to the rest of the group, exhibit worse morbidity and mortality. There is currently no approved therapy for patients suffering from PEW.

We believe PINTA 745 is the only potential therapeutic in clinical development to treat this patient population.

In clinical studies conducted of PINTA 745 in men with prostate cancer and in mouse studies in a model of chronic kidney disease, or CKD, conducted with PINTA 745/s, a version of PINTA 745 that was customized for use in mice, several properties well suited for a potential therapeutic for PEW were observed, including:

- ***Reversing muscle loss*** — PINTA 745 not only stopped muscle wasting, it significantly increased muscle mass after four weeks of treatment.
- ***Dosing control*** — PINTA 745 has a human circulating half-life of four days, which affords physicians a significant level of dosing control while conveniently aligning with dialysis treatment schedules. We believe that this is particularly important in ESRD patients given changes in patient weight.
- ***Anti-inflammatory properties*** — In an animal model of renal disease, PINTA 745/s exhibited significant anti-inflammatory properties, a factor that we believe will be important due to the critical role that inflammation plays in PEW and the overall declining health of ESRD patients.

We designed the Phase 2 trial to give us insight into potential additional therapeutic areas for PINTA 745. These could include: orthopedic indications; inflammation and inflammatory diseases; age-related sarcopenia (loss of muscle); and cancer cachexia. In each of these conditions, muscle loss prevention, muscle growth and reduction in inflammation resulting from treatment with PINTA 745 could lead to improved physical function and therefore to better outcomes. We expect to release initial data from this Phase 2 clinical trial in the second half of 2015.

Our second product candidate, STM 434, has an open IND and we expect to commence a Phase 1 clinical study of up to 66 patients with ovarian cancer and other solid tumors in the second half of 2014. STM 434 is a soluble ActR2B receptor that binds Activin A. Activin has been shown to be involved in the growth and proliferation of ovarian cancer and other tumors, with published evidence of

its role at both the genetic (messenger RNA) and protein levels. Activin expression is one of a few biomarkers associated with larger tumor volume and poorer outcomes, including shortened survival in a variety of tumors including ovarian tumors. Published data has shown that serum Activin A levels in ovarian cancer subjects are elevated in relation to levels in normal subjects. We plan to test the potential use of Activin A as a biomarker in our Phase 1 clinical study.

Ovarian cancer is the fifth leading cause of cancer death in women in the United States. According to the National Cancer Institute, there were an estimated 22,240 new ovarian cancer cases and 14,030 ovarian cancer deaths in the United States in 2013. Surgery and cytotoxic chemotherapies are widely used to treat ovarian cancer; however, the outcomes have changed little in 40 years. The proportion of all ovarian cancer patients surviving five years after diagnosis was only 44% based on the National Cancer Institute SEER database for women diagnosed from 2003 to 2009.

Some subtypes of ovarian tumors respond even more poorly to treatment than others and represent opportunities where drug development could be accelerated. In particular, clear cell and granulosa cell tumors are considered resistant to chemotherapy. Our preclinical experiments in animal models of these subtypes indicate that binding Activin A with a soluble receptor could significantly reduce tumor proliferation, reduce tumor volume and potentially increase survival. We believe that novel therapies for clear cell and granulosa cell tumors could qualify for FDA breakthrough designation, an FDA process designed to accelerate the development and review of drugs intended to treat a serious condition when early studies show that the drug may be substantially better than current treatment, and thereby achieve expedited regulatory approval. Based on its mechanism of action, we also believe that STM 434 has the potential to be the first product to target tumor growth and proliferation through the inhibition of Activin A.

Both PINTA 745 and STM 434 are novel molecules with well-characterized mechanisms of action. They were developed initially, along with our five other in-licensed programs, at Amgen. Taken together, we believe these unique product candidates constitute a pipeline of biologics that have benefited from years of investment, resulting in a large patent portfolio, broad preclinical testing and, in the case of PINTA 745, promising clinical results. We are evaluating the remaining five molecules to determine the best path forward. Where appropriate, we intend to conduct preclinical studies and file INDs with the FDA for these candidates.

Our business model is to license or acquire and develop novel molecules for serious unmet medical needs with validated molecular targets and established proof of concept. Based on the properties of each of these molecules, including efficacy, safety, pharmacokinetics, affinity and other characteristics, we match each program to clinical indications that we believe maximize its therapeutic potential and may result in an expedited path to market. We believe our management team has the breadth and depth of experience to execute this model. Our management team includes:

- ***Isaac E. Ciechanover, M.D.***, our President and Chief Executive Officer, was Executive Director for Business Development at Celgene. At Celgene, he led the company's venture capital efforts and led licensing and acquisition activities with an aggregate transaction value of more than $6.7 billion. Those efforts included striking licensing and partnership transactions with cancer therapeutics companies Agios Pharmaceuticals, Inc., Acceleron Pharma Inc. and PTC Therapeutics Inc. Prior to founding Atara, Dr. Ciechanover was a Partner with Kleiner Perkins Caufield & Byers, a leading venture capital firm.
- ***Christopher Haqq, M.D., Ph.D.***, our Chief Medical Officer, was Vice President for Clinical Research and Development at Cougar Biotechnology, which was acquired by Johnson & Johnson in 2009. At Cougar Biotechnology, he was the lead clinician for a pivotal prostate cancer study leading to market approval for Zytiga (abiraterone acetate). He has served as medical monitor for more than ten clinical trials and has contributed to drug development

programs for a wide range of molecules, and served as an attending oncology physician and director of a translational laboratory at the University of California, San Francisco.

- ***Mitchall G. Clark***, our Chief Regulatory and Quality Officer, was previously Senior Vice President of Global Regulatory Affairs at Abraxis Bioscience, Inc., or Abraxis, where he submitted and managed five INDs for oncology and cardiovascular drugs including Abraxane (nanoparticle albumin-bound paclitaxel).
- ***Gad Soffer***, our Chief Operating Officer, previously held various roles at Celgene, including most recently Global Project Leader for Abraxane following Celgene's acquisition of Abraxis, where he led successful regulatory submissions for pancreatic cancer and non-small cell lung cancer.
- ***John F. McGrath, Jr.***, our Chief Financial Officer, was previously Executive in Residence and Operating Partner at Kleiner Perkins Caufield & Byers. Prior to that time, he served as Vice President and Chief Financial Officer for Network Equipment Technologies, Inc., a publicly traded company. He has served on the board of directors of the Presidio Fund, a publicly traded mutual fund, and on the boards of directors and as Audit Committee chairman of publicly traded companies Actel Corporation and Endwave Corporation.

Our Strategy

Our goal is to be a leader in the development and commercialization of novel therapeutics for serious unmet medical needs. We are initially focused on muscle wasting conditions and oncology. Key components to achieve this objective include:

- ***Rapidly advance PINTA 745 in clinical development***— We intend to complete our ongoing Phase 2 clinical trial with PINTA 745 with the goal of obtaining positive results in ESRD patients with PEW. If the data supports it, we intend to seek feedback from health authorities, including the FDA, and advance PINTA 745 to global registration trials in PEW. In parallel, we intend to seek out additional indications for which to explore the therapeutic utility of PINTA 745.
- ***Obtain clinical proof of concept for STM 434***— We expect to commence a Phase 1 study with STM 434 to study safety and tolerability as well as early signs of activity in a patient population that includes patients with ovarian and other solid tumors in the second half of 2014. We intend to test STM 434 as a single therapy and in combination with other chemotherapy options that are the current standard of care. In the clear cell and granulosa cell subtypes of ovarian cancer, we may seek orphan drug status. If supported by the clinical data, we may seek breakthrough designation and pursue clinical trials of STM 434 in these specific subtypes.
- ***Evaluate our product candidates and advance them into the clinic as appropriate***— Our initial product portfolio includes five additional unique candidates that have not yet entered clinical trials. We will evaluate these candidates and determine which of them to advance and the indications in which to advance them.
- ***Leverage our relationships and experience to in-license or acquire additional molecules for development***— We intend to capitalize on our relationships with both pharmaceutical companies and academic institutions to identify, review and ultimately license or acquire novel product candidates, which our team will develop and commercialize.
- ***Retain worldwide rights for product candidates*** — We intend to maintain worldwide rights to our product candidates in order to maximize their commercial value. We are developing our product candidates in specialty indications in which we believe it is feasible and economically advantageous to build our own commercial organization. However, when compelling opportunities arise, it may be to our advantage to seek collaborations in certain indication areas or geographies. We hold worldwide rights to our entire portfolio, except for PINTA 745, which Amgen licensed to Takeda in Japan.

Our Product Candidates

PINTA 745 for Protein-Energy Wasting in End-Stage Renal Disease Patients

Our lead product candidate, PINTA 745, is a peptibody that binds myostatin and inhibits its corresponding signal transduction, thereby blocking the negative regulation of skeletal muscle growth. We are conducting a Phase 2 trial in patients with ESRD who are also suffering from PEW at six US-based sites, including academic sites, as well as those associated with Fresenius and DaVita, two leading providers of kidney care in the United States. PEW refers to a state of muscle wasting, inflammation and malnutrition that increases patients' risk for infections, cardiovascular disease and other complications. We believe that patients with PEW may benefit from the muscle-building demonstrated in earlier clinical trials and anti-inflammatory properties of PINTA 745 demonstrated in preclinical trials, which are discussed in more detail below. INDs for PINTA 745 were filed by Amgen, the product candidate's previous sponsor, in October 2005 and July 2009. Both of these INDs are open, with our wholly owned subsidiary Pinta as the holder.

Protein-Energy Wasting in ESRD Patients

PEW is a common and serious condition affecting patients on kidney dialysis. Patients with PEW lose significant body mass and suffer from muscle wasting and weakness. In several published studies, PEW has been shown to increase the already high morbidity and mortality associated with ESRD. A study published in 2010 examined 40,950 dialysis patients from 12 countries and showed that PEW increases patients' risk for infections, cardiovascular disease and other complications. Another study published in 2010 examined more than 120,000 dialysis patients and found that patients who lost overall body weight but gained muscle mass had a higher survival rate. Many dialysis patients with PEW experience a lower quality of life due to poor limb strength, low endurance and impaired muscle power. Worsening of walking speed and grip strength, associated with loss of muscle mass, have been shown to be effective predictors of mortality.

Albumin is the most abundant protein circulating in the blood, and a sensitive indicator of the body's nutritional status. In dialysis patients, a decline in serum albumin indicates a serious overall protein wasting state. In these patients, the ability to predict mortality risk is associated with the presence of muscle wasting or inflammation.

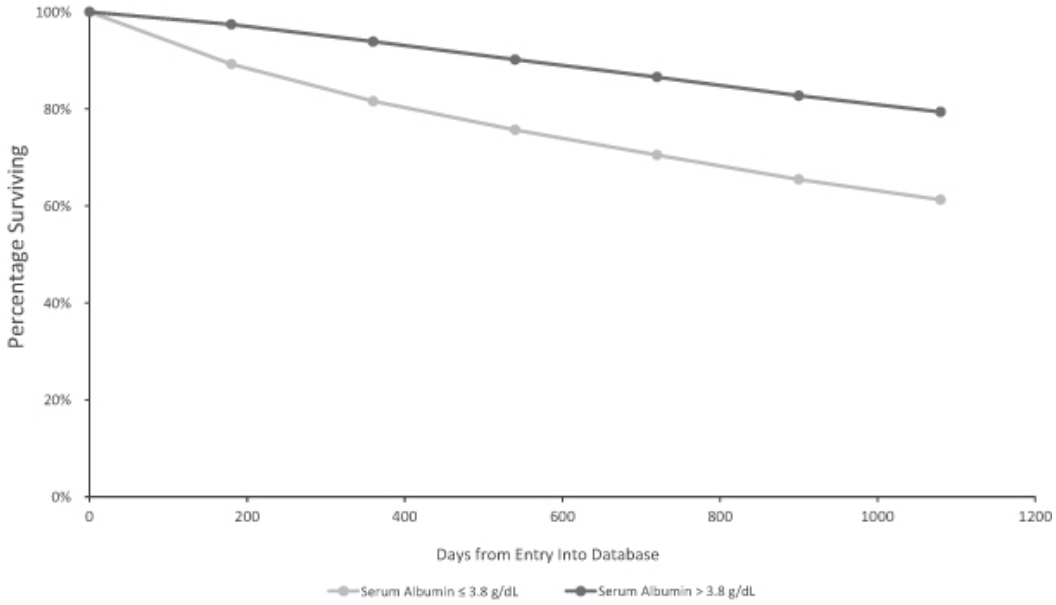
DaVita Study

In order to better understand the market opportunity for PEW therapies in dialysis patients, we collaborated on a study of PEW in dialysis patients with DaVita. DaVita has collected data on over 130,000 renal patients including those enrolled in over 300 clinical trials worldwide in order to better understand the pathology and clinical course of kidney disease. The resulting database is a unique and powerful resource that allows for fast understanding of the disease state and the impact of treatments in kidney disease.

Using the DaVita dialysis database, we were able to characterize patients for the PEW condition and identify those patients at higher risk of morbidity and mortality. We analyzed 56,350 DaVita dialysis patients who began treatment at DaVita between 2009 and 2012 and had at least six months of dialysis. We then followed these patients from the time they entered the database for 1,200 days or until they died or were lost to follow-up. Of these patients, 54% had a serum albumin level less than or equal to 3.8 g/dL six months after beginning dialysis. Among these, approximately 11% of patients died within one year compared to less than 3% of patients whose serum albumin was higher than the 3.8 g/dL dialysis threshold. At the three-year mark, approximately 40% of patients with low serum albumin who had been followed for three years had died in comparison with roughly 21% of patients who had been followed for three years with serum albumin levels above the critical threshold six months after beginning dialysis. We believe that patients with PEW represent a significant cost to the

healthcare system. We and DaVita are currently pursuing health economic studies in order to quantify this cost, comparing treatment for those who have PEW to those who do not.

Survival Rates Based Upon Serum Albumin Levels



PEW Market Opportunity

Based on data from the US Renal Data System, we estimate that the current total US dialysis population, excluding patients who had successfully received kidney transplants, is 460,000 patients. Of these patients, we estimate that approximately 250,000 patients suffer from PEW. Worldwide, we believe that more than 800,000 patients suffer from PEW.

Limitations of Current Therapies for PEW

There are no pharmacologic therapies approved by the FDA indicated for PEW. Furthermore, we are not aware of any such therapies in clinical trials for PEW that target myostatin. Current treatment options for muscle wasting include appetite stimulants, nutritional support, corticosteroids, anabolic steroids and human growth hormone. Dietary supplements containing 10 grams of protein or more per day are recommended for PEW patients by consensus guidelines. Long term stabilization of lean body mass, muscle mass or serum albumin levels in patients showing symptoms of PEW or related conditions such as cancer cachexia have not been observed through dietary changes or nutritional supplements.

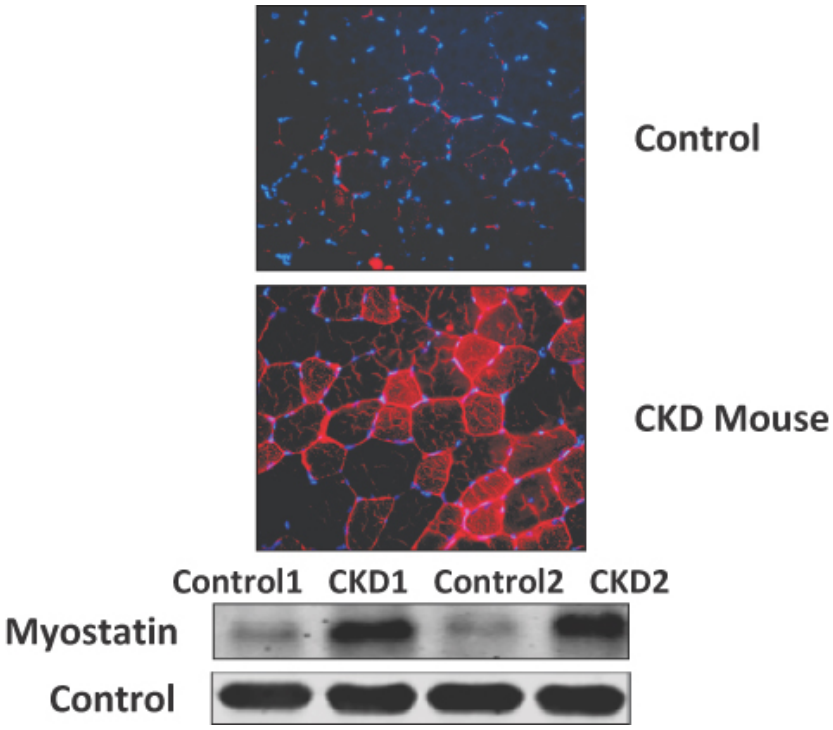
Biology of Myostatin

Myostatin, a member of the TGF-ß superfamily of growth factors, is highly expressed in skeletal muscle and fat tissue. It acts as a negative regulator of muscle growth and appears to promote fat gain. Through knockout experiments and observation of naturally occurring knockouts of myostatin in mice, cattle, dogs, as well as a human being, there is a body of evidence supporting the role of

myostatin in regulating muscle growth. In particular, myostatin has been shown to inhibit the growth of new muscle stem cells as well as play a part in the destruction of muscle through the NF-κB pathway. Animals and humans born without a functioning myostatin gene exhibit muscle overgrowth while otherwise showing no apparent negative effects.

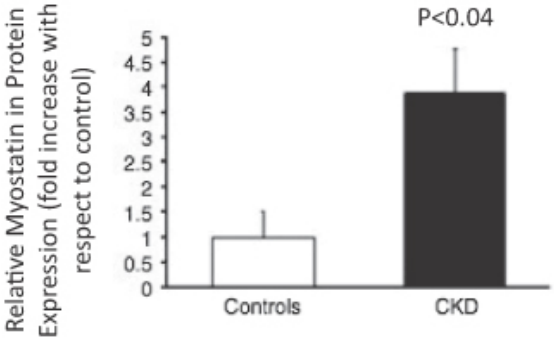
Myostatin inhibition was first characterized and evaluated in the mid-1990s as a potential mechanism for limiting muscle wasting. Several proof-of-concept studies have shown the ability of myostatin inhibitors to build muscle. Several other companies are pursuing myostatin inhibitors for other conditions, including cancer cachexia, Duchenne Muscular Dystrophy and orthopedic indications.

Preclinical studies have shown that myostatin is upregulated, or increased, in the skeletal muscle of mice suffering from CKD. One such study, published in the *FASEB Journal* in 2011, is shown below.

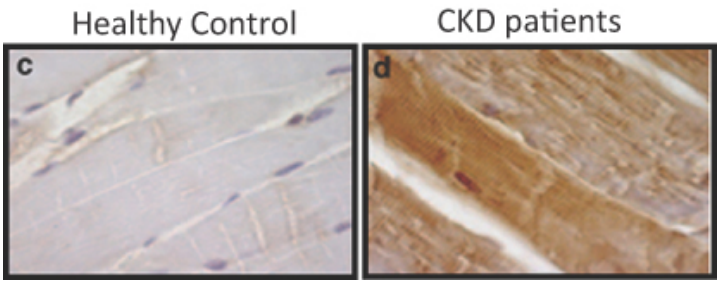


In the two upper images, myostatin upregulation is shown by fluorescence in the muscle cells of a CKD mouse compared to a control mouse. In the two lower images, myostatin protein expression levels are shown in the muscle cells of two CKD mice compared to control mice.

The following charts and images from a study published in *Kidney International* in 2011 show that myostatin is upregulated in skeletal muscle taken from dialysis patients. This was observed both quantitatively and when a thin slice of muscle tissue was examined under a microscope, or histologically.



The p-value is a measure of the likelihood that the data observed are from chance instead of due to the effects of the drug tested. The smaller the p-value, the stronger the likelihood that the data observed resulted from the drug tested rather than from chance. By convention, p-values less than 0.05 are considered significant, indicating a high degree of confidence that the result is due to therapy with the drug and not to chance.



In the upper graphs, myostatin RNA and protein levels are increased in CKD patients compared to healthy controls. In the lower images, myostatin in muscle stains dark in CKD patients compared to healthy controls.

Mechanism of PINTA 745

PINTA 745 is a peptibody, a peptide-antibody combination. The peptide component binds to myostatin, preventing it from docking with its receptors on the surface of muscle cells and blocking its role in inhibiting muscle production and maintenance. Peptibodies, as a class of therapeutics, are well-characterized, with one product on the market and several more, including PINTA 745, in clinical trials. Compelling features of the PINTA 745 peptibody are:

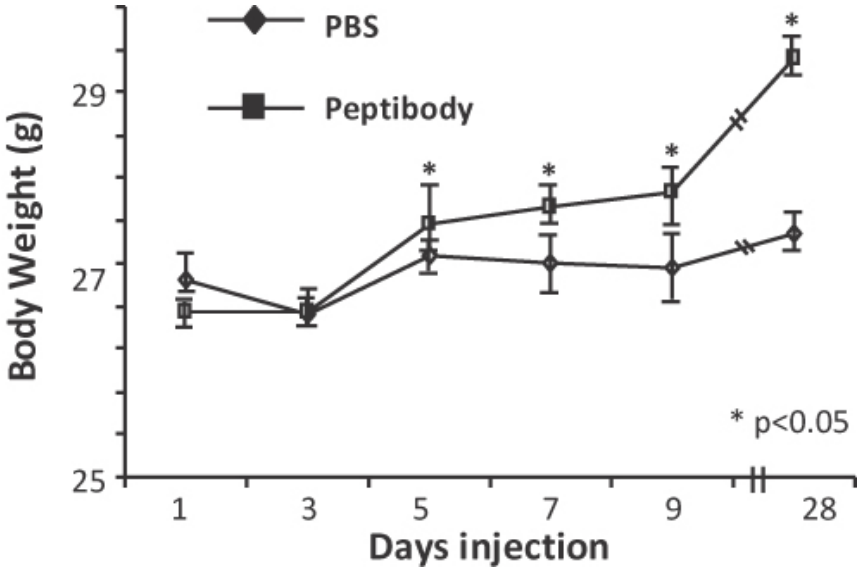
- Its half-life, which at four days is considerably shorter than the typical therapeutic antibody half-life of two to four weeks. The shorter half-life of PINTA 745 means that its blood levels can be more tightly controlled by the physician while conveniently aligning with dialysis treatment schedules, which we believe is particularly important in the ESRD patient population given change in patient weight.
- Anti-inflammatory properties, a factor that we believe will be important due to the critical role that inflammation plays in PEW and the overall declining health of ESRD patients.

We believe that the mechanism and pharmacologic properties of PINTA 745 are well-suited to the PEW setting. Preclinical and clinical data describing the effects of PINTA 745 are discussed below.

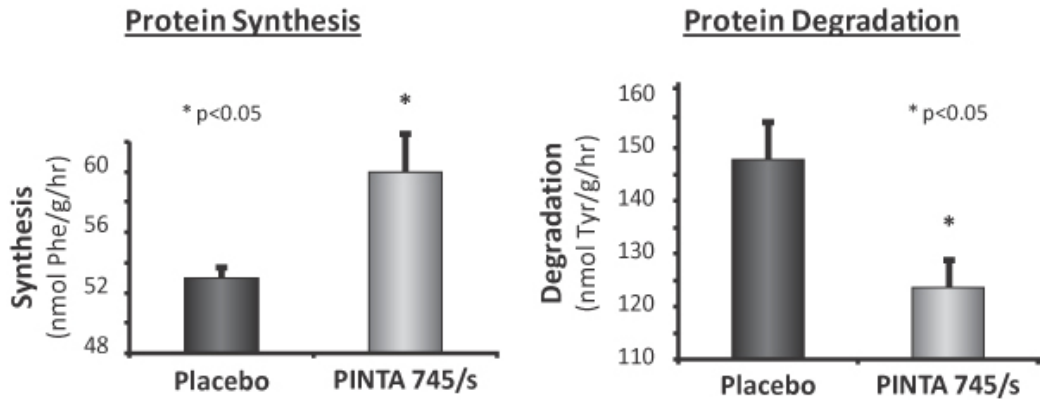
Preclinical Studies

A preclinical study was conducted to determine PINTA 745's effect in mouse models of ESRD. In the 5/6-nephrectomy model, a mouse model considered to be the industry standard for studying ESRD and its related effects, a version of PINTA 745 developed for mice, which we refer to as PINTA 745/s, was shown to reverse body weight loss and reduce skeletal muscle mass and inflammation, which are morbidities associated with PEW. Nephrectomized mice, which have a condition mimicking ESRD and are referred to as CKD mice, and control mice of comparable size and blood urea nitrogen levels were injected either with PINTA 745/s or with saline. The experimental mice were injected subcutaneously at 5.0 mg/kg every other day for 7 to 28 days.

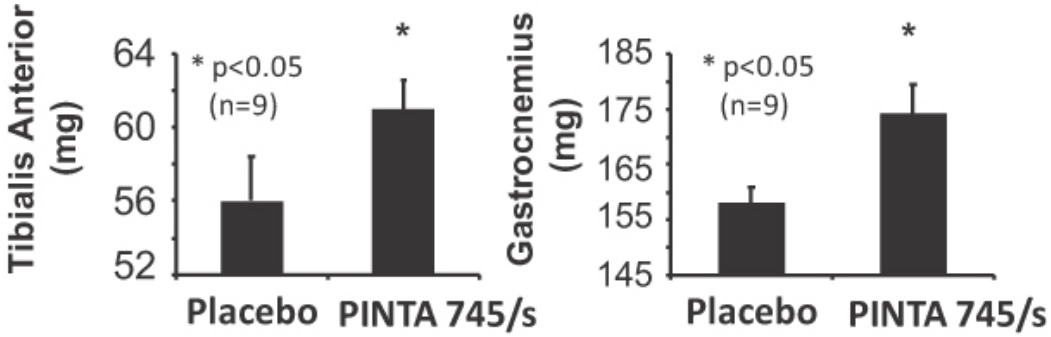
After seven days of PINTA 745/s treatment, the body and muscle weights of the CKD mice increased significantly compared with those in saline-treated CKD mice, an effect that persisted over 28 days.



Protein synthesis—as measured by the uptake of a radiolabeled amino acid tracer—was increased and protein degradation—as measured by the release of a different amino acid tracer—was inhibited. This data underscores PINTA 745/s' role in both forming new muscle and hindering the destruction of existing muscle.



Further, PINTA 745/s increased muscle mass in the two muscles tested after seven days of treatment, the tibialis anterior and the gastrocnemius, an effect that continued over 28 days. In other preclinical studies, increases in muscle mass were observed in mice in doses as low as 0.01 mg/kg, with peak effect at 1.0 and 5.0 mg/kg.



In CKD mice, circulating levels of 10 cytokines, which are mediators of inflammation, were increased in comparison to control mice. PINTA 745/s treatment for seven days decreased the level of these cytokines, suggesting that myostatin inhibition affects CKD-induced inflammation. The five cytokines shown below were the ones that were statistically significantly reduced in CKD mice treated with PINTA 745/s as compared to CKD mice treated with placebo.

Cytokine	Control Mice (pg/ml)	CKD Mice Treated with Placebo (pg/ml)	CKD Mice Treated with PINTA 745/s (pg/ml)	P Values	
				CKD Mice vs. Control Mice	CKD Mice Treated with Placebo vs. CKD Mice Treated with PINTA 745/s
Fibrinogen (µg/ml)	156.75 ± 34.87	2877.5 ± 1007.68	323.25 ± 306.50	0.0016*	0.003*
IFN- γ (pg/ml)	16.15 ± 5.04	17.55 ± 2.58	12.57 ± 2.66	0.638	0.036*
IL-6 (pg/ml)	5.8 ± 0.48	10.48 ± 2.23	3.05 ± 0.73	0.041*	0.036*
M-CSF-1 (ng/ml)	7.31 ± 2.51	11.61 ± 2.08	7.48 ± 1.0	0.039*	0.012*
TNF- α (ng/ml)	0.1 ± 0.06	0.151 ± 0.03	0.075 ± 0.04	0.189	0.033*

* Statistically significant.

Based on these observations, we believe that PINTA 745 has the potential to mitigate the effects of PEW in ESRD patients by increasing muscle formation, stimulating the conversion of muscle stem cells into muscle cells, and decreasing muscle destruction. Furthermore, we believe that PINTA 745 has the potential to decrease inflammation in ESRD patients with PEW, which is an important potential factor often observed with greater morbidity and mortality.

PINTA 745 Phase 1 Clinical Studies — Safety and Tolerability

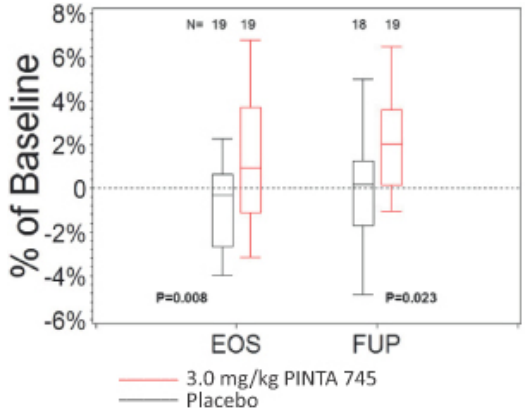
To date, three Phase 1 studies of PINTA 745 have been conducted, two in healthy volunteers and one in prostate cancer patients. PINTA 745 showed both safety and tolerability in all three Phase 1 studies. Across all studies, which enrolled a total of 151 subjects, 48 subjects were exposed to the highest subcutaneous dose of 3.0 mg/kg and no treatment-related serious adverse events were observed. In the healthy volunteer trials, there were observations of some adverse events, mild in severity, that were not dissimilar to those observed in the placebo control group. No serious adverse events, discontinuations due to adverse events or deaths were reported in these trials. The only identified risk from the trials was injection site reactions, which can occur with agents dosed subcutaneously. In the Phase 1 study in prostate cancer patients, events were also mild in severity and similar in the PINTA 745 and placebo groups; one serious adverse event was reported that was considered not related to the drug. As a result, PINTA 745 showed acceptable levels of safety and tolerability.

PINTA 745 Phase 1 Study in Prostate Cancer Patients

A multidose, placebo-controlled, double-blind Phase 1 study of PINTA 745 was carried out by Amgen on 54 men with prostate cancer who were receiving androgen deprivation therapy. This trial assessed both safety and efficacy following four weekly subcutaneous injections. Three Phase 1 dose groups were studied at dose levels of 0.3 mg/kg, 1.0 mg/kg and 3.0 mg/kg, with one placebo arm. This study was published in 2014 in *The Journal of Clinical Endocrinology and Metabolism*.

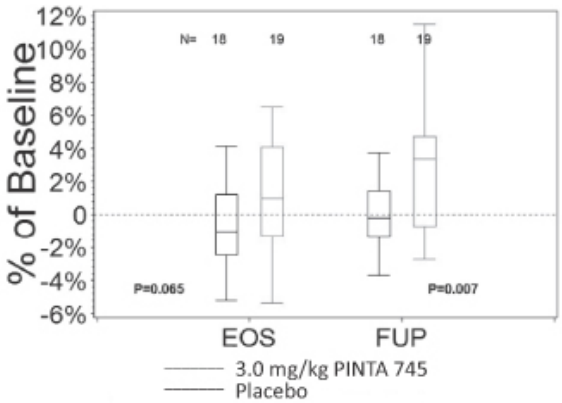
Efficacy parameters that were measured in this study included lean body mass as measured by dual energy X-ray absorptiometry, or DEXA, and lower-extremity muscle size as measured by CT scan. These methods are considered industry standard imaging techniques for measuring muscle mass or volume. Formal statistical testing for efficacy was conducted in the 3.0 mg/kg group. These statistical tests were not performed in the 0.3 mg/kg group and the 1.0 mg/kg groups because fewer patients were treated at these dose levels than were required for such analyses.

Lean body mass increased significantly in the 3.0 mg/kg dose group. The difference in lean body mass in the PINTA 745 group compared to the placebo group was approximately 2% greater at the end of the treatment period, a difference that increased over the subsequent four weeks of observation after the cessation of treatment, as shown in the following chart. Measurements for both placebo and PINTA 745 were taken at end of study, or EOS (at day 29), and at follow up, or FUP (one month after day 29). There was a statistically significant increase in lean body mass at both EOS and FUP for the active arm compared to the control arm. Notably, lean body mass increase persisted at FUP, even without administration of the drug during the follow-up period.



The bottom and top of the boxes represent the first and third quartiles, and the horizontal band inside the box indicates the median value. The ends of the whiskers indicate the minimum and maximum data in the range of observations.

As measured by CT scan, lower extremity muscle size increased significantly in the 3.0 mg/kg group. The muscle size increased in this group by approximately 1.2% at EOS, and further increased to 2.7% from baseline at FUP.



The bottom and top of the boxes represent the first and third quartiles, and the horizontal band inside the box indicates the median value. The ends of the whiskers indicate the minimum and maximum data in the range of observations.

Body fat decreased by 1.7% (p=0.021) in the 3.0 mg/kg group at the end of the treatment period compared to baseline, and the decrease was similar (1.5%, p=0.183) four weeks after the cessation of treatment. The decrease in body fat may reflect the presence of myostatin receptors in fat tissue. Reduced fat mass is an expected pharmacologic finding of myostatin inhibition, observed in multiple preclinical studies using PINTA 745/s as well as in three studies reported in the literature in which ActR2B-Fc fusions were used to inhibit myostatin. All of these studies, published in the *International Journal of Obesity* in 2009, the journal *Endocrinology* in 2012 and the journal *Diabetologia* in 2012, observed reduced fat accumulation in high fat fed mice.

In exploratory efficacy analyses comparing treatment effect and exposure across the dose groups, the 3.0 mg/kg dose appeared to have more impact on lean body mass than the lower doses,

which suggests that humans exhibit dose-responsive efficacy from treatment with PINTA 745. This will be investigated in our ongoing clinical trial.

This trial was carried out in a rigorous setting in order to highlight the properties of PINTA 745. We believe that the results were clinically meaningful for the following reasons:

- The increase in muscle mass was statistically significant against the placebo group, with gains of 2% or more observed in response to treatment with PINTA 745.
- The increase in muscle mass was seen after only one month of weekly dosing and persisted beyond treatment (one month following EOS).
- The patients participating in this study were suffering from prostate cancer, which is associated with significant muscle loss. Historical control patients lost as much as 4% of muscle mass over a 12-month period, based on a study published in the journal *Urology* in 2004.

Design of Ongoing Phase 2 clinical trial of PINTA 745 in ESRD patients with PEW

Our ongoing, randomized, double-blind, placebo-controlled trial with PINTA 745 is designed to demonstrate the effect of myostatin inhibition in PEW and lay the foundation for future clinical development. The study will enroll 40 patients, who will be randomized three-to-one (PINTA 745-to-control). PINTA 745 will be given for three months, and then patients will participate in a two month observation period to assess the durability of changes in muscle and inflammation. The primary endpoint of the trial is change in muscle mass seen through radiographic studies at three months versus the control group.

In the current Phase 2 trial in dialysis patients, we are seeking to reproduce and further characterize the muscle-building effect that was observed in prostate cancer patients in the Phase 1 study. To this end, we have made several key changes to the protocol to gain more insight regarding the efficacy and durability of responses.

Design Element	Prior Phase 1 (Prostate)	Current Phase 2 (PEW)	Rationale
Duration of Therapy	1 month	3 months	Longer term dosing may enhance muscle growth
Dose of PINTA 745	0.3, 1.0 and 3.0 mg/kg	3.0 and 10.0 mg/kg	Higher dose may be more effective and the safety profile may be similarly well-tolerated
Duration of Follow Up	1 month	2 months	Extends information on durability of effect
Route of Administration	Subcutaneous injection	Intravenous injection	Enhances drug exposure and aligns with routine patient management in the dialysis setting

We also have included two functional muscle assessments as secondary endpoints that were not included in the Phase 1 studies. We will be using stair climbing power and six-minute walk tests in order to identify the appropriate parameters to use for physical function testing in future trials. These assessments have become significantly more common in clinical trials and have formed the basis for regulatory approvals of other agents in different indications. Because these assessments were developed for other patient groups of similar age and functional muscle status, such as patients

recovering from a heart attack, we believe that these endpoints are appropriate for use in this population. Once we have demonstrated their feasibility, we may choose one or both of these physical functional assessments for endpoint data in later-stage clinical trials.

Other assessments in the trial include:

- Demonstration of the feasibility of quality of life assessments, such as the kidney disease quality of life assessment as well as assessments of fatigue and anorexia/cachexia.
- Safety monitoring and exposure, including pharmacokinetics, or PK.
- Effects on the duration of use and dose intensity of supportive care drugs.

Given the robust design features of the Phase 2 trial protocol, we believe that if this trial is successful, it will confirm the potential clinical utility of PINTA 745 in this patient population and help us appropriately design subsequent clinical trials to support applications for regulatory approval.

The design of our Phase 2 trial was created not only to support eventual regulatory approval but also to be able to pilot the assessments that will be needed to obtain reimbursement. For that reason, we chose trial sites that effectively reflect the etiology of ESRD in the United States. Our six sites include academic sites, as well as those associated with DaVita and Fresenius. These centers are representative of the vast majority of the US dialysis market.

Biomarker Approach

As part of our Phase 2 clinical trial protocol, we are measuring serum levels of myostatin in patients to see if we can use it as a biomarker to predict which patients will respond best to treatment.

Additional Opportunities for PINTA 745

We designed the Phase 2 trial to give us insight into potential additional markets for PINTA 745. Those markets could include: orthopedic indications; inflammation and inflammatory disease; age-related sarcopenia; and cancer cachexia. In each of these conditions, we believe muscle growth and reduction in inflammation resulting from treatment with PINTA 745 could lead to better outcomes.

STM 434, a Targeted Therapy for Ovarian Cancer and Potentially Other Solid Tumors

STM 434 has an open IND and we expect to commence a Phase 1 clinical study in ovarian cancer and other solid tumors in the second half of 2014. This IND was filed in April 2014 by our wholly owned subsidiary Santa Maria. STM 434 is a soluble ActR2B receptor-IgG fusion protein that binds the signaling molecule human activin. STM 434 has the potential to be the first product to target tumor growth and proliferation by inhibiting multiple ActR2B ligands, including Activin A. A ligand is a protein that binds a receptor on a cell to trigger a signal. In ovarian cancer, Activin A is a novel and promising target. Published data, including a study in *Clinical Cancer Research* in 2008, as well as our preclinical data, suggest that Activin A is upregulated in patients with ovarian cancer, and blocking it reduces proliferation of tumor cells. In many solid tumor types, upregulation of Activin A is correlated with poorer prognoses.

Ovarian Cancer

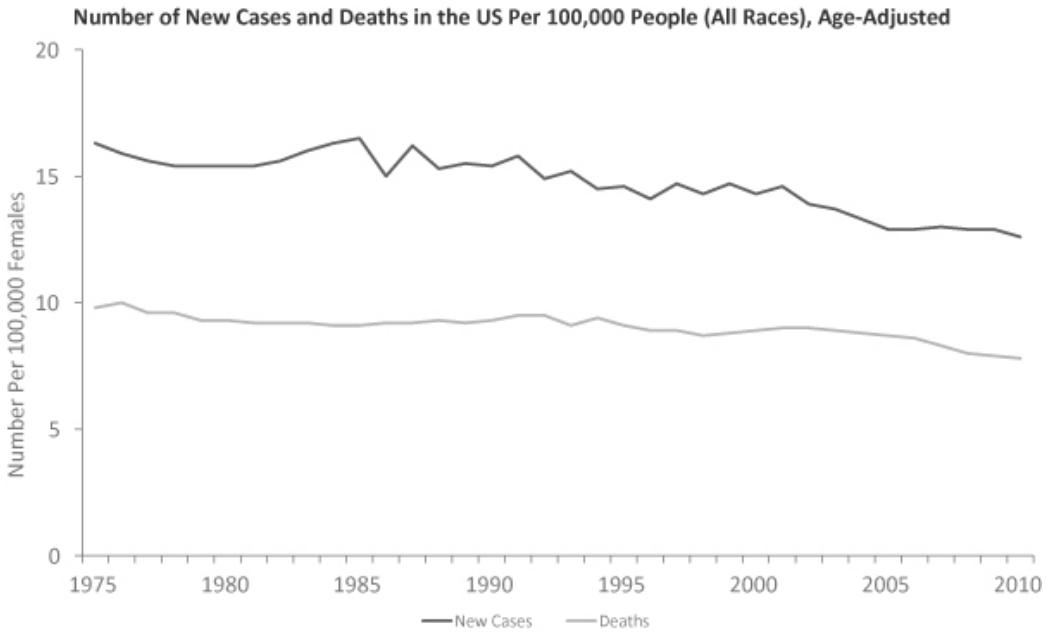
Ovarian cancer is the fifth leading cause of cancer death in women in the United States. According to the National Cancer Institute, there were an estimated 22,240 new ovarian cancer cases and 14,030 ovarian cancer deaths in the United States in 2013. Surgery and cytotoxic chemotherapies are widely used to treat ovarian cancer; however, the outcomes have changed little in 40 years. There were estimated to be approximately 186,000 women suffering from ovarian cancer in the United States in 2010. According to the American Cancer Society, based on patients diagnosed between 2003 and 2009, the blended five-year survival rate is only 44% for ovarian cancer patients overall.

Ovarian cancers are divided into three distinct main subtypes:

- Serous adenocarcinoma, which accounts for approximately 63% of ovarian tumors in the United States.
- Clear cell cancers, which account for approximately 11% of ovarian tumors in Western countries and a higher percentage in Asian countries. For example, clear cell cancers have been reported to account for approximately 23% of ovarian tumors in Japan.
- Granulosa cell tumors, which account for approximately 2 to 5% of ovarian tumors in the United States.

Limitations of Current Therapies for Ovarian Cancer

Despite the strong unmet need for better therapies, there have been few new treatment options introduced, and numerous studies, including a 2012 study published in *Obstetrics & Gynecology*, have shown that clinical outcomes have not improved significantly for several decades.



Source: National Cancer Institute.

First Line Treatment

Surgical therapy for ovarian cancer that has not escaped the ovary can be curative. In other cases, palliative debulking surgery is often considered. However, for women with advanced or recurrent tumors that have escaped the ovary and involve critical anatomic structures, there are no curative therapies, and chemotherapy is generally employed. When chemotherapy is indicated, treatment for these subtypes may vary but are generally based on a foundation of platinum chemotherapy. Response rates and outcomes vary among subtypes.

- Serous tumors have a reported response rate to chemotherapy of 72 to 73%, according to a 2005 study in the journal *Clinical Cancer Research*; however, most patients relapse, resulting

in a median survival of approximately 40.8 months, according to a 2010 publication in the *International Journal of Gynecological Cancer*.

- Clear cell tumors have a platinum-based chemotherapy response rate of approximately 11% as reported in a 2006 study in the *British Journal of Cancer*. Median overall survival in patients with clear cell tumors is approximately 21.3 months.
- The data on post-surgery response rates to chemotherapy in the granulosa subtype of ovarian cancer is limited due to its rarity.

Recurrent Disease Treatment

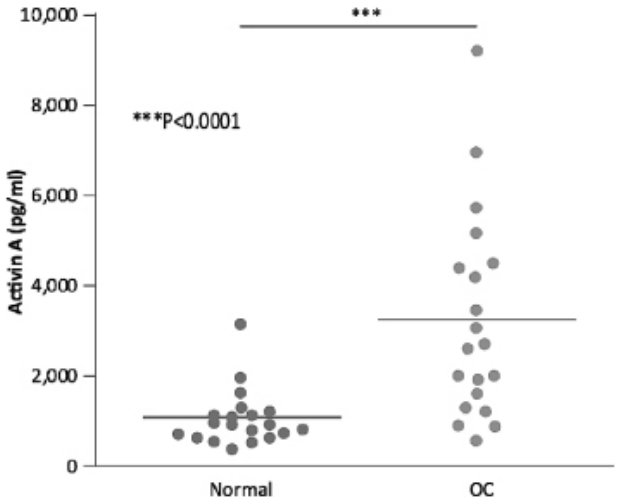
For patients whose tumors did not respond to first line therapy, or for those whose tumors became unresponsive to platinum chemotherapy, a number of other chemotherapy options may be applied, including liposomal doxorubicin, topotecan and gemcitabine. Despite these therapies, the median survival of platinum chemotherapy resistant ovarian cancer is approximately 13 months.

Role of Activin A in Ovarian Cancer and Other Solid Tumors

Activin A, a secreted growth factor, is a member of the TGF-ß superfamily of growth factors, which also includes Activin B, Activin AB, GDF-11 and others. Activin A is widely understood to be involved in the growth and proliferation of ovarian cancer and other solid tumors. Some of the other secreted proteins in this superfamily, including Activin AB, have also been implicated in the growth of these tumors. As reported in *BMC Medical Genomics* in 2010, overexpression of Activin A in support cells called stroma is a key component of a metastasis-associated gene expression signature. This signature predicts shortened survival across a number of cancers including, among others, ovarian, gastric and breast cancers. Over-expression of Activin A is now recognized as a common feature across advanced solid tumors including head and neck, colon, gastric, esophageal, pancreatic and non-small cell lung cancer. In addition to their role in regulating interactions between epithelial cells and stromal cells, activins may also be involved in regulating stem cell survival.

Activin A has been found to play a role in the three principal subtypes of ovarian cancer: serous, clear cell and granulosa. For example, the mRNA precursor for activin has been found to be upregulated in approximately 30% of specimens of serous ovarian cancer. At the protein level, as published in 1997 in the *Journal of Clinical Endocrinology and Metabolism*, most typical serous ovarian cancers made serum Activin A.

Many women with ovarian cancer have high levels of activin A. The utility of high activin A in ovarian cancer will be explored in the phase 1 study.



Genetic Linkages to Ovarian Cancer Subtypes

In a genetic link between the activin pathway and ovarian cancer, mutations in the BRCA gene have been found in 5 to 10% of serous ovarian tumors. According to a 2012 publication in the journal *PloS One*, these patients with BRCA mutations fail to produce the Activin A counter-regulators follistatin and inhibin, implying that these tumors may be unable to switch off activin signaling.

In clear cell ovarian cancer, studies have shown that mutations in the ARID1A gene contribute to tumor proliferation. Specifically, these mutations drive upregulation in the signaling cascade triggered by the ActR2B receptor. Mutations in the ARID1A gene were present in 55 of 119 (46%) and 17 of 31 (55%) ovarian clear cell tumors, as reported in a 2010 publication in *The New England Journal of Medicine* and a 2014 publication in *BMC Cancer*, respectively. We believe that increased levels of activin mimic the effect of ARID1A mutations, and therefore play a similar role in clear cell ovarian cancer.

In granulosa cell ovarian cancer, mutations in the FOXL2 C134W gene have been suggested in several studies to drive the growth of tumors. This mutation was present in 97% (86 of 89) of granulosa cell tumors as reported in a 2009 publication in *The New England Journal of Medicine*. In a normal cell, activin is under tight control—FOXL2 protein turns on follistatin when an activin signal is received, and follistatin, a natural inhibitor of activin, then shuts off the activin signal. However, in granulosa cell tumors, mutant FOXL2 C134W is not able to turn on follistatin, and activin signals continue unchecked. These studies have been reported in 2014 in the journal *Biochemical and Biophysical Research Communications* as well as in 2013 in the journal *Molecular and Cellular Endocrinology*.

Mechanism of Action of STM 434

We believe that STM 434 has the potential to be the first product to address directly the underlying biology of ovarian tumors. Activin A is known to act through the ActR2B receptor on the surface of ovary cells. When the receptor receives the signal from Activin A, it initiates a cascade of gene transcription that leads to abnormal cell proliferation, cell migration, blood vessel formation and

inhibition of programmed cell death. STM 434 is a ligand trap, which mimics the ActR2B receptor, binding Activin A and other ligands that would normally activate this receptor. Several ligand traps based on other receptors have been developed as therapeutic products and commercialized successfully. The choice of a ligand trap for STM 434 conforms mechanistically with the goal of binding Activin A and other secreted proteins associated with the ActR2B receptor and tumor growth.

STM 434 has a half-life of one to two weeks in monkeys. We believe that it will have a similar half-life in humans, suggesting that STM 434 could be dosed every four weeks. This dosing schedule would align well with the current predominant protocols for administering chemotherapy in both the first-line and the second-line setting in ovarian cancer.

Preclinical Studies

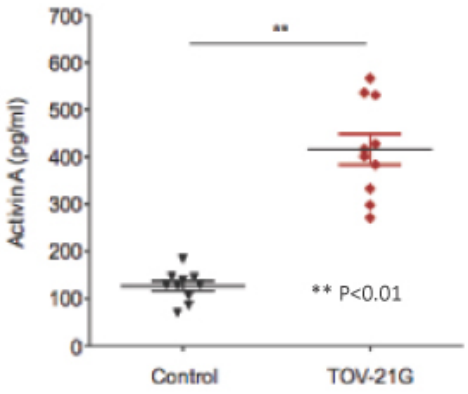
Preclinical testing of STM 434 was designed to confirm and quantify its effects in binding Activin A and other ligands with a receptor-like ligand trap. These studies were conducted with STM 217, a close analog of STM 434, which we refer to as STM 434/s. In addition, these studies were carried out in two types of mouse models: TOV-21G mice, which are analogous to patients with clear cell ovarian tumors and carry ARID1A mutations, and inhibin knockout mice, which are analogous to patients with granulosa cell tumors.

Results of the TOV-21G study have shown that blocking Activin A by using a soluble receptor, as both a single therapy and in combination with chemotherapy, led to a reduction in tumor size. In other experiments, knockout mice that were born without inhibin, and therefore had high activin levels that led to granulosa cell ovarian tumors, survived longer after treatment with STM 434/s in comparison to untreated mice. A 2007 publication in the journal *Molecular Human Reproduction* showed that the survival of the knockout mice was greatly improved when they were treated with an ActR2B-Fc fusion similar to STM 434. Other mouse tumor models tested, including renal cell carcinoma, melanoma and small cell lung cancer were shown to be sensitive to activin levels and antitumor responses were seen when activins were inhibited.

TOV-21G Mouse Models (Clear Cell Ovarian Tumors)

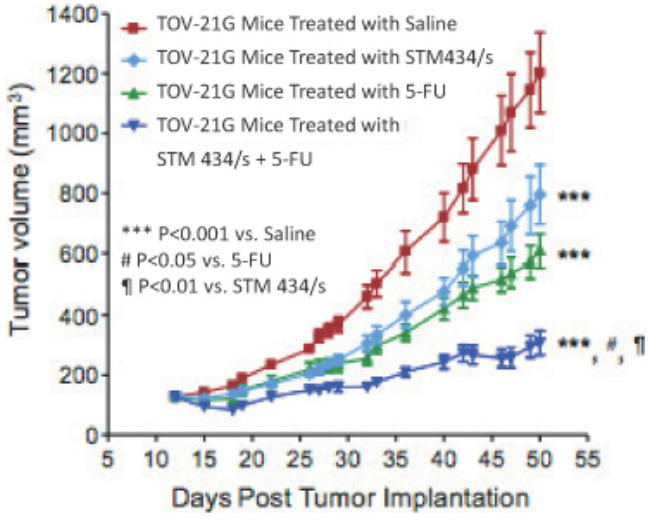
In a preclinical study using TOV-21G mice, tumors derived from human clear cell ovarian carcinoma were shown to have high levels of serum Activin A, analogous to those observed in human ovarian cancer patients as described above.

Serum Activin A

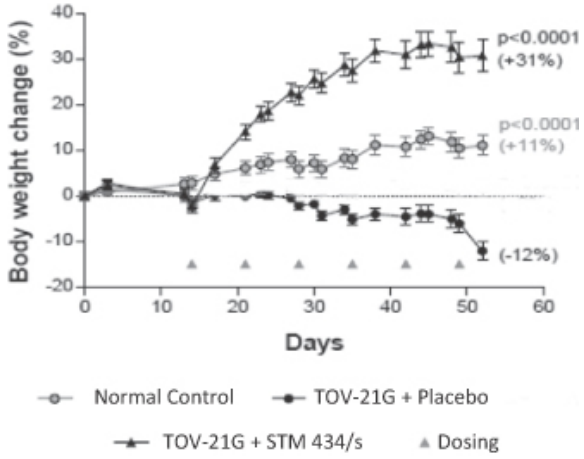


In a subsequent preclinical study that we presented together with Amgen at the American Society of Clinical Oncology meeting in Chicago in 2013, we evaluated STM 434/s in this TOV-21G model used as both a single agent and in combination with the chemotherapy agent 5-fluorouracil, or 5-FU. STM 434/s was administered subcutaneously weekly at 10.0 mg/kg beginning on day 12. 5-FU was administered for three cycles. The tumor was measured two to three times per week, up to day 52. Results from these experiments showed a statistically significant reduction in tumor volume for the agent. Results of the combination experiments showed an additive reduction in tumor growth.

Additive Effect with 5-FU



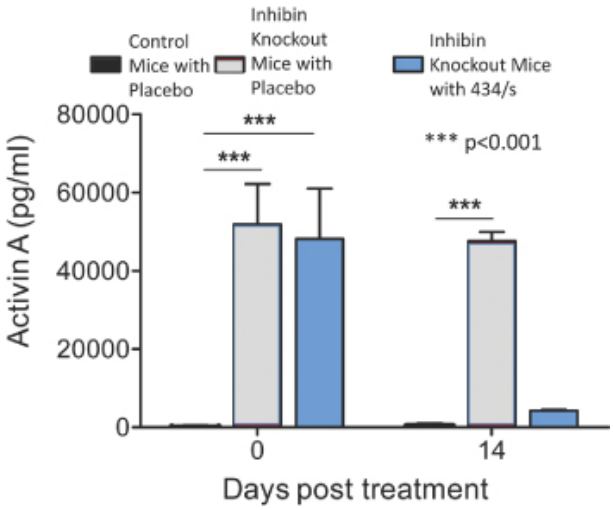
In addition, this study examined the anticachectic effects of STM 434/s in this model. Cachexia is a condition associated with significant weight loss often seen in patients with solid tumor cancers. The results of this study showed that the administration of STM 434/s increased body weight of the mice. In addition to demonstrating the antitumor properties of STM 434/s, we believe that this data also demonstrates that an ActR2B soluble receptor may provide an additional benefit to patients by addressing cancer cachexia. We intend to investigate these attributes as part of our planned Phase 1 clinical study.



Results from these experiments showed a statistically significant (31%, p<0.0001) reduction in tumor volume for the agent. Results of the combination experiments showed an additive (73%, p<0.0001) reduction in tumor growth.

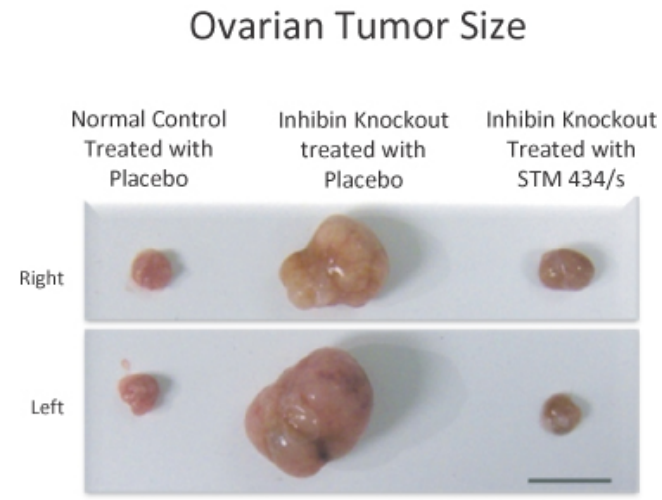
Inhibin Knockout Mouse Model (Granulosa Cell Tumors)

For granulosa cell studies, a knockout mouse model was used with STM 434/s. The study showed that serum Activin A levels in the knockout mice were elevated, and upon treatment with STM 434/s Activin A levels were significantly reduced.

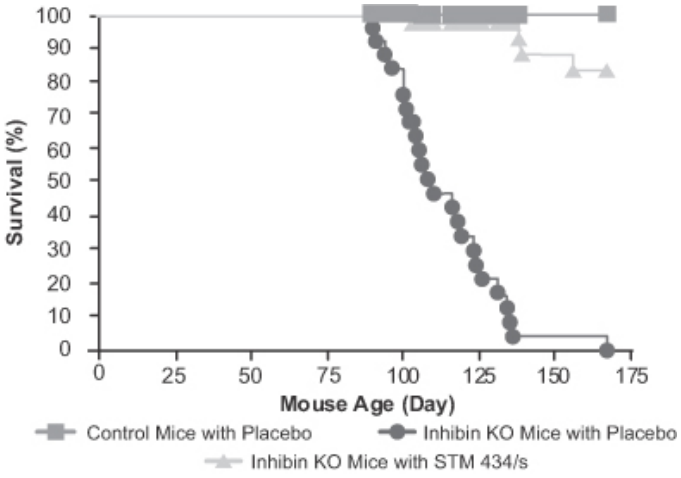


STM 434/s treatment reduced the elevated circulating Activin A in the inhibin knockout mice to the levels in control mice. Serum Activin A was measured before and 14 days after treatment.

Further, this study showed that treatment with STM 434/s reduced ovary size to near normal in comparison to control mice treated with saline. A representative example of the observed reduction in size is shown below. In this study, STM 434/s was administered as a single dose of 30 mg/kg.



Lastly, the knockout model treated with STM 434/s showed a statistically significant ($p<0.0001$) improvement in survival with 90% (20 of 22 mice) alive at 133 days of age, as compared to knockout mice treated with saline, where 96% (23 of 24) had died by this time.



Phase 1 Clinical Study in Ovarian Cancer and Other Solid Tumors

We expect to commence an open-label Phase 1 study of STM 434 in the second half of 2014 in up to 66 patients, assuming all cohorts are expanded to the maximum number of patients allowed. The dosing schedule for this study is once every four weeks. This study is being conducted in three parts:

- ***Part 1*** — Dose escalation study in patients with advanced solid tumors. Dosing initiated at 0.25 mg/kg. We plan to test up to the maximum tolerated dose, or MTD. Assuming no MTD is reached, we will test ascending doses of 0.5, 1.0, 2.0 and 4.0 mg/kg.
- ***Part 2*** — Designed to obtain additional safety and exploratory efficacy data in patients with advanced ovarian cancer, including clear and granulosa cell tumors.
- ***Part 3*** — Designed to study STM 434 in combination with chemotherapy in patients with ovarian cancer who have received prior treatment.

The objectives for our Phase 1 study are: to test if STM 434 monotherapy is safe and well tolerated; to obtain preliminary efficacy data in ovarian cancer and other solid tumors; to assess safety and preliminary efficacy of STM 434 with liposomal doxorubicin chemotherapy or the current standard of care; and to explore biomarkers predictive of response to treatment. Further objectives include collecting pharmacokinetic data during therapy with STM 434 and defining the recommended Phase 2 dose.

Based on data supporting the role of activin in the progression of other solid tumors and the inclusion criteria, we expect that two thirds of the patients included in the dose escalation portion of the Phase 1 study will have solid tumors in organs other than the ovary. A portion of the other tumors may include pancreas, stomach and kidney tumors, where there is a high correlation between Activin A upregulation and the severity and outcome of disease. We expect to release initial data from this Phase 1 clinical study in the first half of 2016.

Biomarker Approach

Activin expression is one of a few biomarkers associated with severity in a variety of tumors including ovarian tumors. For this reason, Activin A is one of 12 genes that are measured in colon cancer as part of the clinically validated OncotypeDX colon cancer panel. Our Phase 1 study will test whether high levels of Activin A measured at baseline before patients receive STM 434 predict whether they respond to treatment. If levels of Activin A can predict response, this biomarker may be valuable in late phase trials to optimize the trial design and maximize the proportion of patients who respond to STM 434.

In addition, we will be measuring follicle-stimulating hormone, or FSH, levels, a routine laboratory test, to determine the inhibition of activin by STM 434. It is well established that activin negatively regulates FSH, and we therefore can use FSH reduction as a surrogate for activin inhibition.

Pipeline

Our pipeline currently consists of five product candidates in addition to PINTA 745 and STM 434. The members of this initial portfolio are closely related to one another in terms of the biology and align with our in-house expertise regarding development, manufacturing, intellectual property strategy and other critical activities. These products share association with the TGF-ß superfamily of growth factors. At the same time, they represent distinct modes of intervention with potentially different therapeutic applications. These distinctions relate to target specificity, pharmacokinetic/pharmacodynamic relationships and modality. We believe these molecules have unique characteristics, and, in some cases, demonstrated activity in preclinical studies, which would make them attractive candidates for various indications, including cancer cachexia, a condition that is implicated in up to 30% of cancer deaths with limited existing treatments. We are evaluating these molecules to determine the best path forward. Where appropriate, we intend to conduct preclinical studies and file IND applications with regulatory authorities for these candidates.

Our research stage programs include:

- *ATA 842*, a humanized antibody targeting myostatin designed to be more selective than similar programs in the clinic targeting oncologic, orthopedic and renal indications;
- *ATA 777*, a fully human antibody targeting Activin A, which we believe will be well suited for non-oncology indications where chronic dosing and specificity to Activin A is beneficial;
- *ATA M43*, a fully human anti-ActR2A/2B monoclonal antibody with high affinity to both receptors that is mechanistically similar to programs targeting muscle wasting diseases;
- *STM 217*, a soluble ActR2B receptor-IgG Fc fusion protein and a close analog of STM 434; and
- *ActR2B5*, a soluble ActR2B receptor that can be fused to an IgG Fc receptor.

Competition

The biotechnology and pharmaceutical industries are characterized by rapidly advancing technologies, intense competition and a strong emphasis on proprietary products. While we believe that our innovative technology, knowledge, experience and scientific resources provide us with competitive advantages, we face potential competition from many different sources, including major pharmaceutical, specialty pharmaceutical and biotechnology companies, academic institutions and public and private research institutions. Some of these potential competitors may have a more established presence in the market and significantly greater financial, technical and human resources than we have. Our commercial opportunity will be reduced or eliminated if our competitors develop and commercialize products that are safer, more effective, have fewer side effects or are less expensive than any products that we may develop.

If approved, PINTA 745 or STM 434 would compete with currently marketed drugs and therapies used for treatment of the following indications, and potentially with drug candidates currently in development for the same indications:

Muscle Wasting-Related Indications

There currently are no FDA or EMA approved products for the treatment of PEW in dialysis patients and we are not aware of any product candidates in clinical development for this indication. However, products are currently marketed or used off-label for the muscle wasting-related indication for which we are developing PINTA 745, and a number of companies are or may be developing new treatments for muscle wasting indications. The current treatment for PEW and cancer cachexia often involves the administration of readily available nutritional supplements and appetite stimulants including, in some jurisdictions, marijuana. In addition, there are two commercially available steroids, nandrolone and oxandrolone, that are sometimes prescribed off-label for the treatment of weight loss in cancer patients.

Additionally, a number of companies are developing drug candidates for muscle wasting applications, including: Eli Lilly & Co., which is conducting Phase 1 clinical studies and Phase 2 clinical trials for LY2495655, and Pfizer Inc., which is conducting Phase 1 clinical studies for PF-06252616, both of which are myostatin antibodies, to evaluate their ability to increase and improve muscle mass in various patient populations; Novartis Corporation, which is conducting Phase 1 clinical studies and Phase 2 clinical trials for BYM338, an ActR2B antibody, to evaluate its ability to build muscle in patients with various muscle-wasting conditions; Ligand Pharmaceuticals, which is developing LGD-4033, a selective androgen receptor modulator, for muscle wasting; Regeneron Pharmaceuticals, Inc., which is developing REGN1033, a myostatin antibody, in collaboration with Sanofi-Aventis; and GTx, Inc., which is developing ostarine, a selective androgen receptor modulator for cachexia.

Ovarian Cancer

There are numerous approved products and therapies for ovarian cancer, and a number of companies are or may be developing new treatments for ovarian cancer and other solid tumors. These

therapies, as well as promotional efforts by competitors and clinical trial results of competitive products, could significantly diminish any ability to market and sell STM 434. Approved drug therapies for ovarian cancer include chemotherapy with platinum compounds such as cisplatin or carboplatin and taxane compounds such as paclitaxel or docetaxel, and hormone therapies including gosarelin, luprolide, tamoxifen, letrozole, anostrazole and exemestane.

We are aware of other companies engaged in clinical development of compounds for treatment of ovarian cancer. These include:

- PARP inhibitors such as AstraZeneca plc's olaparib and Tesaro's niraparib;
- Angiogenesis inhibitors, such as Genentech/Roche's bevacizumab (Avastin);
- VEGFr tyrosine kinase inhibitors such as Boehringer Ingelheim GmbH's nintedanib and AstraZeneca plc's recentin;
- Anti-folates such as Endocyte Inc.'s and Merck & Co. Inc.'s vintafolide and Eisai's farletuzumab; and
- Other therapies in development, including those from GlaxoSmithKline plc, Amgen and Clovis Oncology, Inc.

However, there are no targeted therapies approved by the FDA or EMA for the treatment of ovarian cancer that address the underlying biology.

License Agreements

License for PINTA 745

In September 2012, we entered into a license agreement with Amgen under which Amgen granted us an exclusive license under certain Amgen patent rights and regulatory filings, and a non-exclusive license under certain Amgen know-how, to develop and commercialize throughout the world, excluding Japan, products comprising Amgen's proprietary compound known as AMG 745, which we now refer to as PINTA 745. We have the right, subject to certain limitations, to grant sublicenses under such licensed intellectual property, in connection with licensing the licensed product. Our exclusive rights are subject to a prior license granted by Amgen to Takeda to the licensed patent rights exclusively in Japan.

Under this agreement, we are responsible for developing and commercializing the licensed product, at our cost, are required to use commercially reasonable efforts with respect to such development and commercialization activities, and must meet specific diligence obligations. We have paid Amgen an upfront license fee of $250,000, issued 266,666 shares (2,400,000 shares prior to the recapitalization) of Series A-1 convertible preferred stock, and made $553,000 in payments to date to Amgen for purchases of clinical supplies. Each of the 266,666 shares of Series A-1 convertible preferred stock will convert into one share of common stock immediately prior to completion of the offering. We are obligated to make payments to Amgen upon receipt of certain clinical supplies from Amgen, upon the achievement of certain development and commercialization milestones of up to $129.0 million, as well as escalating mid to high single-digit royalties based on sales of the licensed products by us, our affiliates or our sublicensees. We also will be obligated to pay Amgen a percentage of certain sublicensing royalties paid to us by any sublicensee under the agreement, if we sublicense the licensed product rights to a third party prior to October 2014. We hold the first right to file, prosecute, maintain and enforce all licensed rights throughout the world, except in Japan, where Amgen has the sole right to do so, and Amgen retains certain step-in rights.

This agreement, unless terminated earlier, will continue on a country-by-country basis until the expiration of the last to expire of all royalty obligations we owe to Amgen, which will occur on the later of (a) the date on which exploitation of a licensed product is no longer covered by a valid claim of a

patent under the agreement which covers a product in an applicable country, (b) the loss of regulatory exclusivity in such country, or (c) 10 years after the first commercial sale of the applicable licensed product in such country. Upon expiration of the agreement, we retain non-exclusive rights to the licensed Amgen intellectual property. Amgen may terminate the agreement if we materially breach the agreement and do not cure such breach in a specified notice period, for a failure of our specified diligence obligations, if we experience certain insolvency events, or if we or our sublicensee challenge the patentability, validity or enforceability of any of the Amgen patents licensed under the agreement. We may terminate the agreement for Amgen's uncured material breach, or if our board of directors concludes that, due to safety, efficacy, marketability, patent coverage or competition concerns, the development or commercialization of a licensed product is no longer commercially practicable for us.

Other License Agreements

In September 2012, we entered into two other license agreements with Amgen under which Amgen granted us worldwide exclusive licenses under certain Amgen patent rights and regulatory filings, and non-exclusive licenses under certain Amgen know-how, to develop and commercialize products comprising certain of Amgen's proprietary compounds known as AMG 777, AMG 434, AMG 217, ActR2B5, AMG 842 and M43. We now refer to AMG 777 as ATA 777, AMG 434 as STM 434, AMG 217 as STM 217 and AMG 842 as ATA 842. We have the right, subject to certain limitations, to grant sublicenses under such licensed intellectual property, in connection with licensing the covered products.

Under both of these license agreements, we are responsible for the worldwide development and commercialization of the licensed products, at our cost, are required to use commercially reasonable efforts with respect to such development and commercialization activities, and must meet certain specific diligence obligations. In exchange for these licenses, we issued 533,334 shares (4,800,000 shares prior to the recapitalization) of Series A-1 convertible preferred stock. Each of the 533,334 shares of Series A-1 convertible preferred stock will convert into one share of common stock immediately prior to completion of the offering. We are obligated to make payments to Amgen upon the achievement of certain development and commercialization milestones totaling up to $81.5 million for each license agreement, as well as escalating low to mid single-digit royalties based on sales of the licensed products by us, our affiliates or our sublicensees. We hold the first right to file, prosecute, maintain and enforce all licensed rights under these licenses throughout the world, and Amgen retains certain step-in rights.

Both license agreements with Amgen, unless terminated earlier, will continue on a country-by-country basis until the expiration of the last to expire of all royalty obligations we owe to Amgen, which will occur on the later of (a) the date on which exploitation of a licensed product is no longer covered by a valid claim of a patent under the agreement which covers the product in an applicable country, (b) the loss of regulatory exclusivity in such country, or (c) 10 years after the first commercial sale of the applicable licensed product in such country. Upon expiration of each agreement, we retain non-exclusive rights to the relevant licensed Amgen intellectual property. Amgen may terminate either agreement if we materially breach the agreement and do not cure such breach in a specified notice period, for a failure of our specified diligence obligations, if we experience certain insolvency events, or if we or our sublicensee challenge the patentability, validity or enforceability of any of the Amgen patents licensed under the applicable agreement. We may terminate each agreement for Amgen's uncured material breach, or if our board of directors concludes that, due to safety, efficacy, marketability, patent coverage or competition concerns, the development or commercialization of the relevant licensed product is no longer commercially practicable for us.

Intellectual Property

Patents

Our commercial success depends in part on our ability to obtain and maintain proprietary protection for our product candidates, to operate without infringing on the proprietary rights of others

and to prevent others from infringing our proprietary rights. Our policy is to seek to protect our proprietary position by, among other methods, filing US and non-US patent applications related to our proprietary technology, inventions and improvements that are important to the development and implementation of our business. We also rely on trade secrets, know-how, continuing technological innovation and potential in-licensing opportunities to develop and maintain our proprietary position. Additionally, we expect to benefit from a variety of statutory frameworks in the United States, Europe and other countries that relate to the regulation of biosimilar molecules and orphan drug status. These statutory frameworks provide certain periods of regulatory exclusivity for qualifying molecules. See “Government Regulation.”

We seek composition-of-matter and method-of-treatment patents for each of our product candidates in key therapeutic areas. Our in-licensed and proprietary patent estate, on a worldwide basis, includes approximately 85 issued patents and 105 pending patent applications, with certain of these pending and issued claims relating to PINTA 745 and STM 434. These figures include in-licensed patents and patent applications to which we generally hold exclusive commercial rights.

Individual patents extend for varying periods of time depending on the date of filing of the patent application, the priority date claimed and the legal term of patents as determined by the applicable law in the countries in which those patents are obtained. Generally, patents issued from applications filed in the United States are effective for 20 years from the earliest non-provisional filing date. In addition, in certain instances, a patent term can be extended to recapture a portion of the term effectively lost as a result of the FDA regulatory review period, however, the restoration period cannot be longer than five years and the total patent term including the restoration period must not exceed 14 years following FDA approval. The duration of non-US patents varies in accordance with provisions of applicable local law, but typically, a patent’s life is 20 years from the earliest international filing date. Our licensed issued US patents are expected to expire on dates ranging from 2027 to 2029, and our licensed issued non-US patents are expected to expire on dates ranging from 2023 to 2029, exclusive of possible patent term extensions or adjustments. Our pending owned and licensed applications with respect to our product candidates, if issued, are expected to expire, as to applications filed in the United States, on dates ranging from 2026 to 2035, and, as to applications filed in jurisdictions outside the United States, on dates ranging from 2023 to 2035, exclusive of possible patent term extensions or adjustments. However, the actual protection afforded by a patent varies on a product-by-product basis, from country to country and depends upon many factors, including the type of patent, the scope of its coverage, the availability of extensions of patent term, the availability of legal remedies in a particular country and the validity and enforceability of the patent.

National and international patent laws concerning protein-based biologics such as our products remain highly unsettled. No consistent policy regarding the patent-eligibility or the breadth of claims allowed in such patents has emerged to date in the United States, Europe or other countries. Changes in either the patent laws or in interpretations of patent laws in the United States and other countries can diminish our ability to protect our inventions and enforce our intellectual property rights. Accordingly, we cannot predict the breadth or enforceability of claims that may be granted in our patents or in third-party patents. The biotechnology and pharmaceutical industries are characterized by extensive intellectual property litigation. Our ability to maintain and solidify our proprietary position for our product candidates and technology will depend on our success in obtaining effective claims for any patent and enforcing those claims once a patent is granted. We do not know whether any of the patent applications that we may file or license from third parties will result in the issuance of any patents. The issued patents that we own or may receive in the future may be challenged, invalidated or circumvented, and the rights granted under any issued patents may not provide us with sufficient protection or competitive advantages against competitors with similar technology. Furthermore, our competitors may independently develop and commercialize similar drugs or duplicate our technology, business model or strategy without infringing our patents. Because of the extensive time required for clinical development and regulatory review of any drug we may develop from our product candidates, it is possible that, before any of our drugs can be commercialized, any related patent may expire or

remain in force for only a short period following commercialization, thereby reducing any advantage of any such patent. The patent positions for our two lead product candidates are summarized below:

PINTA 745 Patent Portfolio

We hold exclusive rights to four issued US patents directed to PINTA 745 relating to composition-of-matter and related methods of use claims, one issued European patent (registered in most countries of the European Patent Convention) and additional issued patents or pending patent applications in many other jurisdictions worldwide, including Argentina, Australia, Brazil, Canada, China, Egypt, Israel, Japan, the Republic of Korea, Malta, Mexico, Norway, New Zealand, Poland, Serbia, Singapore, Thailand, Taiwan, South Africa, Kosovo, Hong Kong, the Philippines, and Eurasia (validated in Russia). The expected expiration dates for these patents range from 2023 to 2034, exclusive of possible patent term extensions or adjustments.

STM 434 Patent Portfolio

We hold exclusive rights to two issued US patents directed to STM 434 relating to composition-of-matter and related methods of use claims, and issued patents or pending patent applications related to STM 434 in many non-US patent offices worldwide, including in Argentina, Australia, Brazil, Botswana, Canada, Chile, China, Columbia, Costa Rica, Algeria, the Eurasian Patent Office, Egypt, the European Patent Office, the Gulf Cooperation Council, Hong Kong, Indonesia, Israel, India, Jordan, Japan, the Republic of Korea, Libya, Malta, Morocco, Mexico, Malaysia, New Zealand, Peru, the Philippines, Singapore, Tunisia, Taiwan, Ukraine, Vietnam, and South Africa. The expected expiration dates for these patents range from October 2026 to November 2029, exclusive of possible patent term extensions or adjustments.

Trade Secrets

In addition to patents, we rely upon unpatented trade secrets and know-how and continuing technological innovation to develop and maintain our competitive position. We seek to protect our proprietary information, in part, using confidentiality agreements with our commercial partners, collaborators, employees and consultants and invention assignment agreements with our employees. These agreements are designed to protect our proprietary information and, in the case of the invention assignment agreements, to grant us ownership of technologies that are developed through a relationship with a third party. These agreements may be breached, and we may not have adequate remedies for any such breach or any unauthorized disclosure of our proprietary information. In addition, our trade secrets may otherwise become known or be independently discovered by competitors. To the extent that our commercial partners, collaborators, employees and consultants use intellectual property owned by others in their work for us, disputes may arise as to the rights in related or resulting know-how and inventions.

Government Regulation

Overview of US Government Regulation

The preclinical studies and clinical testing, manufacture, labeling, storage, record keeping, advertising, promotion, export, marketing and sales, among other things, of our product candidates are subject to extensive regulation by governmental authorities in the United States and other countries. In the United States, pharmaceutical products are regulated by the FDA under the Federal Food, Drug, and Cosmetic Act and other laws, including, in the case of biologics, the Public Health Service Act. We expect PINTA 745 and STM 434 to be regulated by the FDA as biologics and to be reviewed by the Center for Drug Evaluation and Research, or CDER, as proteins intended for therapeutic use. Protein

therapeutics require the submission of a BLA and approval by the FDA prior to being marketed in the US. Manufacturers of protein therapeutics may also be subject to state regulation. Failure to comply with FDA requirements, both before and after product approval, may subject us or our partners, contract manufacturers, and suppliers to administrative or judicial sanctions, including FDA refusal to approve applications, warning letters, product recalls, product seizures, total or partial suspension of production or distribution, fines and/or criminal prosecution.

The steps required before a biologic may be approved for marketing of an indication in the United States generally include:

- completion of preclinical laboratory tests, animal studies and formulation studies conducted according to GLPs and other applicable regulations;
- submission to the FDA of an IND which must become effective before human clinical trials may commence;
- completion of adequate and well-controlled human clinical trials in accordance with GCPs to establish that the biological product is “safe, pure and potent”, which is analogous to the safety and efficacy approval standard for a chemical drug product for its intended use;
- submission to the FDA of a BLA;
- satisfactory completion of an FDA pre-approval inspection of the manufacturing facility or facilities at which the product is produced to assess compliance with applicable cGMPs; and
- FDA review of the BLA and issuance of a biologics license, which is the approval necessary to market a protein therapeutic.

Before conducting studies in humans, laboratory evaluation of product chemistry, toxicity and formulation as well as animal studies to assess the potential safety and efficacy of the biologic candidate must be conducted. Preclinical toxocology studies in animals must be conducted in compliance with FDA regulations. The results of the preclinical tests, together with manufacturing information and analytical data, are submitted to the FDA as part of an IND. Some preclinical testing may continue even after the IND is submitted. In addition to including the results of the preclinical testing, the IND will also include a protocol detailing, among other things, the objectives of the clinical trial, the parameters to be used in monitoring safety and the effectiveness criteria to be evaluated if the first phase or phases of the clinical trial lend themselves to an efficacy determination. The IND will automatically become effective 30 days after receipt by the FDA, unless the FDA within the 30-day time period places the IND on clinical hold because of safety concerns about the product candidate or the conduct of the trial described in the clinical protocol included in the IND. The IND sponsor and the FDA must resolve any outstanding concerns before clinical trials can proceed.

All clinical trials for new drugs and biologics must be conducted under the supervision of one or more qualified principal investigators in accordance with GCPs. They must be conducted under protocols detailing the objectives of the applicable phase of the trial, dosing procedures, research subject selection and exclusion criteria and the safety and effectiveness criteria to be evaluated. Each protocol must be submitted to the FDA as part of the IND, and progress reports detailing the status of the clinical trials must be submitted to the FDA annually. Sponsors must also report to the FDA within certain timeframes, serious and unexpected adverse reactions, any clinically important increase in the rate of a serious suspected adverse reaction over that listed in the protocol or investigator’s brochure, or any findings from other studies or animal or in vitro testing that suggest a significant risk in humans exposed to the product candidate. An IRB at each institution participating in the clinical trial must review and approve the protocol before a clinical trial commences at that institution, approve the information regarding the trial and the consent form that must be provided to each research subject or the subject’s legal representative, and monitor the trial until completed.

Clinical trials are typically conducted in three sequential phases, but the phases may overlap and different trials may be initiated with the same product candidate within the same phase of development in similar or differing patient populations. Phase 1 clinical studies may be conducted in a limited number of patients or healthy volunteers, as appropriate. The product candidate is initially tested for safety and, as appropriate, for absorption, metabolism, distribution, excretion, pharmacodynamics and pharmacokinetics.

Phase 2 usually involves trials in a larger, but still limited, patient population to evaluate preliminarily the efficacy of the product candidate for specific, targeted indications to determine dosage tolerance and optimal dosage and to identify possible short-term adverse effects and safety risks.

Phase 3 trials are undertaken to further evaluate clinical efficacy of a specific endpoint and to test further for safety within an expanded patient population at geographically dispersed clinical trial sites. Phase 1, Phase 2, or Phase 3 testing might not be completed successfully within any specific time period, if at all, with respect to any of our product candidates. Results from one trial are not necessarily predictive of results from later trials. Furthermore, the FDA or the sponsor may suspend clinical trials at any time on various grounds, including a finding that the subjects or patients are being exposed to an unacceptable health risk. Similarly, an IRB can suspend or terminate approval of a clinical trial at its institution if the clinical trial is not being conducted in accordance with the IRB's requirements or if the product candidate has been associated with unexpected serious harm to patients.

The results of the preclinical studies and clinical trials, together with other detailed information, including information on the manufacture and composition of the product, are submitted to the FDA as part of a BLA requesting approval to market the product candidate for a proposed indication. Under the Prescription Drug User Fee Act the fees payable to the FDA for reviewing a BLA, as well as annual fees for commercial manufacturing establishments and for approved products, can be substantial but are subject to certain limited deferrals, waivers and reductions that may be available. The fees typically increase each year. Each BLA submitted to the FDA for approval is reviewed for administrative completeness and reviewability within 60 days following receipt by the FDA of the application. If the BLA is found complete, the FDA will file the BLA, triggering a full review of the application. The FDA may refuse to file any BLA that it deems incomplete or not properly reviewable at the time of submission. The FDA's established goal is to review 90% of priority BLA applications within six months after the application is accepted for filing and 90% of standard BLA applications within 10 months of the acceptance date, whereupon a review decision is to be made. The FDA, however, may not approve a product candidate within these established goals and its review goals are subject to change from time to time. Further, the outcome of the review, even if generally favorable, may not be an actual approval but a "complete response letter" that describes additional work that must be done before the application can be approved. Before approving a BLA, the FDA may inspect the facility or facilities at which the product is manufactured and will not approve the product unless the facility complies with cGMPs. The FDA may deny approval of a BLA if applicable statutory or regulatory criteria are not satisfied, or may require additional testing or information, which can extend the review process. FDA approval of any application may include many delays or never be granted. If a product is approved, the approval may impose limitations on the uses for which the product may be marketed, may require that warning statements be included in the product labeling, may require that additional studies be conducted following approval as a condition of the approval, and may impose restrictions and conditions on product distribution, prescribing, or dispensing in the form of a Risk Evaluation and Mitigation Strategy, or REMS, or otherwise limit the scope of any approval. The FDA must approve a BLA supplement or a new BLA before a product may be marketed for other uses or before certain manufacturing or other changes may be made. Further post-marketing testing and surveillance to monitor the safety or efficacy of a product is required. Also, product approvals may be withdrawn if compliance with regulatory standards is not maintained or if safety or manufacturing problems occur following initial marketing. In addition, new government requirements may be established that could delay or prevent regulatory approval of our product candidates under development.

As part of the recently-enacted Patient Protection and Affordable Care Act of 2010, under the subtitle of Biologics Price Competition and Innovation Act of 2009, or the BPCIA, a statutory pathway has been created for licensure, or approval, of biological products that are biosimilar to, and possibly interchangeable with, earlier biological products licensed under the Public Health Service Act. Also under the BPCIA, innovator manufacturers of original reference biological products are granted 12 years of exclusivity before biosimilars can be approved for marketing in the United States. The implementation of an abbreviated approval pathway for biological products is under the direction of the FDA and is currently being developed. The FDA has issued several draft guidances for industry related to the BPCIA, addressing scientific, quality and procedural issues relevant to an abbreviated application for a biosimilar product. The approval of a biologic product biosimilar to one of our products could have a material adverse impact on our business as it may be significantly less costly to bring to market and may be priced significantly lower than our products.

Both before and after the FDA approves a product, the manufacturer and the holder or holders of the BLA for the product are subject to comprehensive regulatory oversight. For example, quality control and manufacturing procedures must conform, on an ongoing basis, to cGMP requirements, and the FDA periodically inspects manufacturing facilities to assess compliance with cGMPs. Accordingly, manufacturers must continue to spend time, money and effort to maintain cGMP compliance.

Orphan Drug Act

The Orphan Drug Act provides incentives to manufacturers to develop and market drugs for rare diseases and conditions affecting fewer than 200,000 persons in the United States at the time of application for orphan drug designation. Orphan drug designation must be requested before submitting a BLA. Orphan drug designation does not convey any advantage in, or shorten the duration of, the regulatory review and approval process. If a product that has orphan drug designation subsequently receives the first FDA approval for the disease for which it has such designation, the holder of the approval is entitled to a seven-year exclusive marketing period in the United States for that product except in very limited circumstances. For example, a drug that the FDA considers to be clinically superior to, or different from, another approved orphan drug, even though for the same indication, may also obtain approval in the United States during the seven-year exclusive marketing period. In addition, holders of exclusivity for orphan drugs are expected to assure the availability of sufficient quantities of their orphan drugs to meet the needs of patients. Failure to do so could result in the withdrawal of marketing exclusivity for the drug.

Activin A has been strongly implicated in two subcategories of ovarian tumors: clear cell tumors and granulosa cell tumors. In these subcategories, we believe that we may be able to obtain orphan drug designation for STM 434 in the United States and, if supported by our clinical data, breakthrough designation, and pursue clinical trials of STM 434 as a monotherapy.

Legislation similar to the Orphan Drug Act has been enacted outside the United States, including in the EU. The orphan legislation in the EU is available for therapies addressing chronic debilitating or life-threatening conditions that affect five or fewer out of 10,000 persons or are financially not viable to develop. The market exclusivity period is for ten years, although that period can be reduced to six years if, at the end of the fifth year, available evidence establishes that the product is sufficiently profitable not to justify maintenance of market exclusivity. The market exclusivity may be extended to 12 years if sponsors complete a pediatric investigation plan agreed upon with the relevant committee of the EMA.

Expedited Review and Approval

The FDA has various programs, including Fast Track, priority review and accelerated approval, which are intended to expedite or simplify the process for developing and reviewing promising drugs,

or to provide for the approval of a drug on the basis of a surrogate endpoint. Even if a drug qualifies for one or more of these programs, the FDA may later decide that the drug no longer meets the conditions for qualification or that the time period for FDA review or approval will be shortened. Generally, drugs that are eligible for these programs are those for serious or life-threatening conditions, those with the potential to address unmet medical needs and those that offer meaningful benefits over existing treatments. For example, Fast Track is a process designed to facilitate the development and expedite the review of drugs to treat serious or life-threatening diseases or conditions and fill unmet medical needs. Priority review is designed to give drugs that offer major advances in treatment or provide a treatment where no adequate therapy exists an initial review within six months as compared to a standard review time of 10 months. Although Fast Track and priority review do not affect the standards for approval, the FDA will attempt to facilitate early and frequent meetings with a sponsor of a Fast Track designated drug and expedite review of the application for a drug designated for priority review. Accelerated approval provides for an earlier approval for a new drug that is intended to treat a serious or life-threatening disease or condition and that fills an unmet medical need based on a surrogate endpoint. A surrogate endpoint is a laboratory measurement or physical sign used as an indirect or substitute measurement representing a clinically meaningful outcome. As a condition of approval, the FDA may require that a sponsor of a product candidate receiving accelerated approval perform post-marketing clinical trials to confirm the clinically meaningful outcome as predicted by the surrogate marker trial.

In June 2013, the FDA published a draft Guidance for Industry titled, “Expedited Programs for Serious Conditions—Drugs and Biologics” which provides guidance on FDA programs that are intended to facilitate and expedite development and review of new drugs as well as threshold criteria generally applicable to concluding that a drug is a candidate for these expedited development and review programs. In addition to the Fast Track, accelerated approval and priority review programs discussed above, the FDA also provided guidance on Breakthrough Therapy designation. A request for Breakthrough Therapy designation should be submitted concurrently with, or as an amendment to an IND. FDA has already granted this designation to over 30 new drugs and has recently approved the first Breakthrough Therapy designated drugs.

Reimbursement

In both domestic and foreign markets, sales and reimbursement of any approved products will depend, in part, on the extent to which the costs of such products will be covered by third-party payors, such as government health programs, commercial insurance and managed healthcare organizations. These third-party payors are increasingly challenging the prices charged for medical products and services and imposing controls to manage costs. The containment of healthcare costs has become a priority of federal and state governments and the prices of drugs have been a focus in this effort. Governments have shown significant interest in implementing cost-containment programs, including price controls, restrictions on reimbursement and requirements for substitution of generic products. Adoption of price controls and cost-containment measures, and adoption of more restrictive policies in jurisdictions with existing controls and measures, could further limit our net revenue and results. In addition, there is significant uncertainty regarding the reimbursement status of newly approved healthcare products. We may need to conduct expensive pharmacoeconomic studies in order to demonstrate the cost-effectiveness of our products. If third-party payors do not consider our products to be cost-effective compared to other therapies, the payors may not cover our products after approved as a benefit under their plans or, if they do, the level of payment may not be sufficient to allow us to sell our products on a profitable basis.

Within the United States, if we obtain appropriate approval in the future to market any of our current product candidates, we may seek approval and coverage for those products under Medicaid, Medicare and the Public Health Service, or PHS, pharmaceutical pricing program and also seek to sell the products to federal agencies.

Medicaid is a joint federal and state program that is administered by the states for low income and disabled beneficiaries. Under the Medicaid Drug Rebate Program, manufacturers are required to pay a rebate for each unit of product reimbursed by the state Medicaid programs. The amount of the rebate for each product is set by law and may be subject to an additional discount if certain pricing increases more than inflation.

Medicare is a federal program administered by the federal government that covers individuals age 65 and over as well as those with certain disabilities. Medicare Part D provides coverage to enrolled Medicare patients for self-administered drugs (i.e., drugs that do not need to be administered by a physician). Medicare Part D is administered by private prescription drug plans approved by the US government and each drug plan establishes its own Medicare Part D formulary for prescription drug coverage and pricing, which the drug plan may modify from time-to-time.

Medicare Part B covers most injectable drugs given in an in-patient setting, and some drugs administered by a licensed medical provider in hospital outpatient departments and doctors' offices. Medicare Part B is administered by Medicare Administrative Contractors, which generally have the responsibility of making coverage decisions. Subject to certain payment adjustments and limits, Medicare generally pays for Part B covered drugs based on a percentage of manufacturer-reported average sales price.

Drug products are subject to discounted pricing when purchased by federal agencies via the Federal Supply Schedule, or FSS. FFS participation is required for a drug product to be covered and paid for by certain federal agencies and for coverage under Medicaid, Medicare Part B and the PHS pharmaceutical pricing program. FSS pricing is negotiated periodically with the Department of Veterans Affairs. FSS pricing is intended to not exceed the price that a manufacturer charges its most-favored non-federal customer for its product. In addition, prices for drugs purchased by the Veterans Administration, Department of Defense (including drugs purchased by military personnel and dependents through the TRICARE retail pharmacy program), Coast Guard, and PHS are subject to a cap on pricing (known as the "federal ceiling price") and may be subject to an additional discount if pricing increases more than inflation.

To maintain coverage of drugs under the Medicaid Drug Rebate Program, manufacturers are required to extend discounts to certain purchasers under the PHS pharmaceutical pricing program. Purchasers eligible for discounts include hospitals that serve a disproportionate share of financially needy patients, community health clinics and other entities that receive health services grants from the PHS.

The American Recovery and Reinvestment Act of 2009 provides funding for the federal government to compare the effectiveness of different treatments for the same illness. A plan for the research will be developed by the Department of Health and Human Services, the Agency for Healthcare Research and Quality and the National Institutes for Health, and periodic reports on the status of the research and related expenditures will be made to Congress. Although the results of the comparative effectiveness studies are not intended to mandate coverage policies for public or private payors, it is not clear what effect, if any, the research will have on the sales of any product, if any such product or the condition that it is intended to treat is the subject of a study. It is also possible that comparative effectiveness research demonstrating benefits in a competitor's product could adversely affect the sales of any of our product candidates, if approved. If third-party payors do not consider our products to be cost-effective compared to other available therapies, they may not cover our products as a benefit under their plans or, if they do, the level of payment may not be sufficient to allow us to sell our products on a profitable basis.

The United States and state governments continue to propose and pass legislation designed to reduce the cost of healthcare. In March 2010, the United States Congress enacted the Patient

Protection and Affordable Care Act and the Health Care and Education Reconciliation Act which includes changes to the coverage and payment for drug products under government health care programs. Adoption of other new legislation at the federal or state level could further limit reimbursement for pharmaceuticals.

Outside the United States, ensuring adequate coverage and payment for our products will face challenges. Pricing of prescription pharmaceuticals is subject to governmental control in many countries. Pricing negotiations with governmental authorities can extend well beyond the receipt of regulatory approval for a product and may require us to conduct a clinical trial that compares the cost effectiveness of our product candidates or products to other available therapies. The conduct of such a clinical trial could be expensive and result in delays in our commercialization efforts. Third-party payors are challenging the prices charged for medical products and services, and many third-party payors limit reimbursement for newly-approved health care products. Recent budgetary pressures in many European Union countries are also causing governments to consider or implement various cost-containment measures, such as price freezes, increased price cuts and rebates. If budget pressures continue, governments may implement additional cost-containment measures. Cost-control initiatives could decrease the price we might establish for products that we may develop or sell, which would result in lower product revenues or royalties payable to us. There can be no assurance that any country that has price controls or reimbursement limitations for pharmaceutical products will allow favorable reimbursement and pricing arrangements for any of our products.

Foreign Regulation

In addition to regulations in the United States, we expect to be subject to a variety of foreign regulations governing clinical trials and commercial sales and distribution of our product candidates. Whether or not we obtain FDA approval for a product candidate, we must obtain approval from the comparable regulatory authorities of foreign countries or economic areas, such as the European Union, before we may commence clinical trials or market products in those countries or areas. The approval process and requirements governing the conduct of clinical trials, product licensing, pricing and reimbursement vary greatly from place to place, and the time may be longer or shorter than that required for FDA approval.

Certain countries outside of the United States have a process that requires the submission of a clinical trial application much like an IND prior to the commencement of human clinical trials. In Europe, for example, a clinical trial application, or CTA, must be submitted to the competent national health authority and to independent ethics committees in each country in which a company intends to conduct clinical trials. Once the CTA is approved in accordance with a country's requirements, clinical trial development may proceed in that country. In all cases, the clinical trials must be conducted in accordance with good clinical practices, or GCPs and other applicable regulatory requirements.

Under European Union regulatory systems, a company may submit marketing authorization applications either under a centralized or decentralized procedure. The centralized procedure is compulsory for medicinal products produced by biotechnology or those medicinal products containing new active substances for specific indications such as the treatment of AIDS, cancer, neurodegenerative disorders, diabetes, viral diseases and designated orphan medicines, and optional for other medicines which are highly innovative. Under the centralized procedure, a marketing application is submitted to the European Medicines Agency where it will be evaluated by the Committee for Medicinal Products for Human Use and a favorable opinion typically results in the grant by the European Commission of a single marketing authorization that is valid for all European Union member states within 67 days of receipt of the opinion. The initial marketing authorization is valid for five years, but once renewed is usually valid for an unlimited period.

As in the United States, we may apply for designation of a product as an orphan drug for the treatment of a specific indication in the European Union before the application for marketing authorization is made. Orphan drugs in Europe enjoy economic and marketing benefits, including up to 11 years of exclusivity for the approved indication unless another applicant can show that its product is safer, more effective or otherwise clinically superior to the orphan designated product.

Additional Regulation

We are also subject to regulation under the Occupational Safety and Health Act, the Environmental Protection Act, the Toxic Substances Control Act, the Resource Conservation and Recovery Act and other present and potential federal, state or local regulations. These and other laws govern our use, handling and disposal of various biological and chemical substances used in, and waste generated by our operations. Our research and development involves the controlled use of hazardous materials, chemicals and viruses. Although we believe that our safety procedures for handling and disposing of such materials comply with the standards prescribed by state and federal regulations, the risk of accidental contamination or injury from these materials cannot be completely eliminated. In the event of such an accident, we could be held liable for any damages that result and any such liability could exceed our resources.

There have been a number of federal and state proposals during the last few years regarding the pricing of pharmaceutical and biological products, government control and other changes to the healthcare system of the United States. It is uncertain what legislative proposals will be adopted or what actions federal, state or private payers for medical goods and services may take in response to any healthcare reform proposals or legislation. We cannot predict the effect medical or healthcare reforms may have on our business, and no assurance can be given that any such reforms will not have a material adverse effect.

Manufacturing

Our strategy is to outsource the manufacturing of drug substance and drug product for our preclinical studies and clinical trials. We also outsource fill-finish, packaging, labeling, storage, shipping and distribution. This allows us to rapidly conduct manufacturing activities for multiple programs in parallel. It also allows us to balance the requirements of multiple programs and avoid costly investment in manufacturing infrastructure and personnel before clinical data are available. Our internal capabilities and experience in the manufacturing of protein therapeutics encompass a broad range of activities including cell line development, process development, analytical development, formulation development, clinical and commercial scale GMP manufacturing, quality control and quality assurance. This breadth of experience allows us to effectively oversee and direct the activities of our contract manufacturers and testing facilities. In selecting CMOs to manufacture our product candidates, we generally strive to select the CMO based on the particular technical needs of the product candidate. In addition, we aim to work with CMOs that possess the requisite scale, expertise and experience to support clinical as well as commercial product manufacturing. Although this approach, when coupled with the range of CMO capabilities, requires us to utilize multiple CMOs in the manufacturing of our product candidates, we believe it may also mitigate the need for costly and time consuming process transfers later in development. Ultimately, we believe that our outsourced model and approach to CMO management will allow us to efficiently scale our manufacturing processes to support our current clinical development programs and the potential commercialization of our product candidates.

Our lead product candidates, PINTA 745 and STM 434, are manufactured using readily available raw materials and established manufacturing procedures. PINTA 745 is a peptibody that is expressed by a recombinant strain of E. Coli. STM 434 is produced in bioreactors using Chinese hamster ovary cells

that have been genetically engineered to produce this specific product candidate. All of our other product candidates will also be produced in bioreactors using mammalian cells; however, we have yet to establish master cell banks and manufacturing procedures to support the production of these proteins.

Concurrent with the license of our existing product candidates from Amgen, we acquired certain manufacturing process know-how related to producing clinical research-related drug supply. In the case of PINTA 745 and STM 434, this included GMP materials to support the manufacturing of clinical trial material. In the case of our earlier stage product candidates, this know-how was more limited in scope, as these product candidates are pre- master cell bank in stage of development.

Subsequent investments by the company and our CMOs will be necessary in order to manufacture product for pivotal studies, as well as commercialization. Over time, we will depend on manufacturing campaigns that will require the transfer of manufacturing processes to our CMOs. These may include modifications to the processes to suit the CMO's facility and capability constraints, as well as product comparability testing. We have already transferred the downstream elements of the STM 434 manufacturing process, and we have initiated transfer of the upstream components of the STM 434 manufacturing process. We recently encountered a small number of cracked vials in frozen STM 434 drug product. We believe the problem was adequately addressed by changing the temperature at which the product was frozen. We are also developing a refrigerated liquid formulation of the drug product. We have also initiated process transfer activities for PINTA 745. As we progress further in clinical development to pivotal trials, we will also need to develop commercial scale manufacturing processes for each product candidate consistent with the proposed dose and schedule to be used in clinical practice and at a cost sufficient to support profitable commercialization.

Legal Proceedings

We are not currently subject to any material legal proceedings.

Facilities

Our corporate headquarters are currently located in Brisbane, California, and consist of approximately 900 square feet of leased office space under a sublease that expires in January 2015. Our research and development facility is located in Westlake Village, California, and consists of approximately 1,450 square feet of leased office space under a lease that expires in October 2014.

Employees

As of March 31, 2014, we had 11 full-time employees. All of our personnel are co-employees of Atara and TriNet, a professional human resource service organization. Under our agreement with TriNet, TriNet is a co-employer of our personnel, and is responsible for administering all payroll functions, including tax withholding, and providing health insurance and other benefits for these individuals. We reimburse TriNet for these costs and pay TriNet a fee for its services. We are responsible for, and control, all aspects of the hiring, retention, compensation, management and supervision of our personnel. We consider the terms of our contract with TriNet to be reasonable and customary and believe this arrangement provides substantial benefit to us, in the form of lower costs for employee benefits and reduced administrative burden on us.

MANAGEMENT

Executive Officers, Other Executive Management and Directors

Our executive officers, other executive management and directors, their respective positions and their respective ages as of March 31, 2014 are as follows:

Name	Age	Position(s)
Executive Officers		
Isaac E. Ciechanover, M.D.	43	President, Chief Executive Officer and Director
Mitchall G. Clark	53	Chief Regulatory and Quality Assurance Officer
Christopher Haqq, M.D., Ph.D.	48	Chief Medical Officer
John F. McGrath, Jr.	49	Chief Financial Officer
Gad Soffer	37	Chief Operating Officer
Non-Employee Directors		
Matthew K. Fust(1)(3)	49	Director
Carol Gallagher, Pharm.D.(1)(2)(3)	49	Director
Joel S. Marcus(1)(2)	66	Director
Beth Seidenberg, M.D.(3)	57	Director
Eckard Weber, M.D.(2)	64	Director

(1) Member of the audit committee.
(2) Member of the compensation committee.
(3) Member of the nominating and corporate governance committee.

Executive Officers

Isaac E. Ciechanover, M.D. has served as our President and Chief Executive Officer and a member of our board of directors since our founding in August 2012. From April 2010 to November 2012, Dr. Ciechanover was a partner at Kleiner Perkins Caufield & Byers, a venture capital firm, where he primarily focused on life sciences investing. From 2004 to March 2010, he served in various capacities at Celgene Corporation, or Celgene, a biopharmaceutical company, most recently as Executive Director for Business Development. Dr. Ciechanover has also held business development and venture capital roles at pharmaceutical companies Amylin Pharmaceuticals and Pfizer and venture capital firm Pequot Ventures. Dr. Ciechanover received a B.A. from Stanford University, an M.Phil. in Epidemiology from Cambridge University, an M.D. from Weill Cornell Medical College and an M.B.A. from Harvard Business School. We believe that Dr. Ciechanover's extensive experience in the life sciences industry and in business development, his role as our President and Chief Executive Officer, and his training as a physician, provide him with the qualifications and skills to serve on our board of directors.

Mitchall G. Clark has served as Chief Regulatory and Quality Assurance Officer since March 2014. From June 2013 to March 2014, he served as the Principal of Lindum Pharmaceutical Services, a regulatory consultancy. From December 2011 to June 2013, he served as Senior Vice President, Regulatory Affairs and Quality of NantPharma, LLC, a pharmaceutical company. Mr. Clark served as an independent regulatory consultant between June 2011 and December 2011. From October 2010 to June 2011, Mr. Clark served as Senior Vice President of Regulatory Affairs of Celgene. From November 2007 to October 2010, he served as Senior Vice President of Global Regulatory Affairs of Abraxis, a biopharmaceutical company, which was acquired by Celgene in October 2010. From April 2006 to November 2007, Mr. Clark served as Vice President of Regulatory Affairs of Abraxis and its predecessor entity. From May 2002 to April 2006, Mr. Clark served as Vice President of Regulatory Affairs of American BioScience, Inc., a pharmaceutical company, which was merged with Abraxis in April 2006. Prior to that, Mr. Clark served in various senior regulatory positions at American Pharmaceutical Partners, VivoRx, Inc. and Faulding, Inc. Mr. Clark holds a B. Pharm. from The University of Nottingham, England.

Christopher Haqq, M.D. has served as our Chief Medical Officer since September 2012. From September 2011 to August 2012, Dr. Haqq served as the Chief Executive Officer of Genomic Systems, a biotechnology company. From 2007 to September 2011, Dr. Haqq served as Vice President for Clinical Research and Development at Cougar Biotechnology, Inc., a cancer-focused biotechnology company that was acquired by Johnson & Johnson in 2009, and Johnson & Johnson's Janssen Pharmaceutical Companies division. Prior to that time, Dr. Haqq served in drug development roles at Amgen Inc., a biotechnology company, and practiced as a medical oncologist and led a translational science laboratory as an Assistant Adjunct Professor in the Division of Hematology/Oncology at the University of California, San Francisco. Dr. Haqq received a B.S. degree from Stanford University and an M.D. and Ph.D. from Harvard Medical School.

John F. McGrath, Jr. has served as our Chief Financial Officer since January 2013. From December 2009 to January 2013, Mr. McGrath was an Executive in Residence and Operating Partner at Kleiner Perkins Caufield & Byers. From November 2001 to November 2009, Mr. McGrath served as Vice President and Chief Financial Officer for Network Equipment Technologies, Inc., a networking equipment company. Mr. McGrath's prior experience includes Vice President of Finance for Aspect Communications, Director of Finance for TCSI Corporation and Manager in the High Technology and Manufacturing practice at Ernst & Young. He was a member of the board of directors of Endwave Corporation, Actel Corporation and the Presidio Fund. Mr. McGrath is a registered C.P.A. (inactive) in the State of California and received a B.S. from the University of Wyoming and an M.B.A. from the Stanford Graduate School of Business.

Gad Soffer has served as our Chief Operating Officer since March 2013. From August 2008 to March 2013, he held various roles in Business Development and served as Global Project Leader Abraxane at Celgene. From June 2000 to June 2001 and from April 2004 to April 2006, Mr. Soffer was a healthcare consultant with Easton Associates. He received an A.B. from Harvard University, an M.S. from Columbia University and an M.B.A. from Harvard Business School.

Board of Directors

Matthew K. Fust has served as a member of our board of directors since March 2014. Mr. Fust has served on the board of directors of Ultragenyx Pharmaceutical, Inc. since January 2014, MacroGenics, Inc. since March 2014 and Sunesis Pharmaceuticals, Inc. since 2005. Mr. Fust was Executive Vice President and Chief Financial Officer of Onyx Pharmaceuticals, Inc., a biopharmaceutical company, from January 2009 through its acquisition by Amgen in October 2013. Mr. Fust continued as an employee of Amgen until January 2014. From May 2003 to December 2008, Mr. Fust served as Chief Financial Officer at Jazz Pharmaceuticals, Inc., a specialty pharmaceutical company. From 2002 to 2003, Mr. Fust served as Chief Financial Officer at Perlegen Sciences, a biopharmaceutical company. Previously, he was Senior Vice President and Chief Financial Officer at ALZA Corporation, a pharmaceutical company, where he was an executive from 1996 until 2002. From 1991 until 1996, Mr. Fust was a manager in the healthcare strategy practice at Andersen Consulting. Mr. Fust received a B.A. from the University of Minnesota and an M.B.A. from the Stanford Graduate School of Business. We believe that Mr. Fust is qualified to serve on our board of directors due to his extensive experience as a chief financial officer in the life sciences industry, his leadership and management experience, and his service as a director of other biopharmaceutical companies.

Carol Gallagher, Pharm.D. has served as a member of our board of directors since January 2013. Since October 2013, Dr. Gallagher has served as a venture partner with Frazier Healthcare, a venture capital firm. Dr. Gallagher served as the President and Chief Executive Officer of Calistoga Pharmaceuticals, a biopharmaceutical company, from 2008 to 2011, when the company was acquired by Gilead Sciences. From 2007 to 2008, Dr. Gallagher was the President and Chief Executive Officer of Metastatix, Inc., a biopharmaceutical company. Prior to that time starting in 1989, she served in

various roles at pharmaceutical companies Eli Lilly, Amgen, Agouron Pharmaceuticals, Pfizer, Biogen Idec Pharmaceuticals, CancerVax and Anadys Pharmaceuticals. Dr. Gallagher attended Vanderbilt University and received B.S. and Doctor of Pharmacy degrees from the University of Kentucky. We believe that Dr. Gallagher is qualified to serve on our board of directors due to her extensive experience in the pharmaceuticals industry, her leadership and management experience, and her service as a director of other biopharmaceutical companies. We believe that Dr. Gallagher's extensive experience in the life sciences industry and as a chief executive officer provide her with the qualifications and skills to serve as a director of our company.

Joel S. Marcus has served on our board of directors since November 2013. Mr. Marcus founded Alexandria Real Estate Equities, Inc., a publicly-traded real estate investment trust, or REIT, focused on owning, operating, and developing high-quality, sustainable real estate for the broad and diverse life science industry, and has served as its Chairman since May 2007, Chief Executive Officer since March 1997, and a director since its founding in 1994. Mr. Marcus also co-founded and leads Alexandria Venture Investments, the Company's strategic venture arm. Prior to founding Alexandria, Mr. Marcus specialized in corporate finance and capital markets, venture capital, and mergers and acquisitions with special expertise in the biopharmaceutical industry. Mr. Marcus was formerly a practicing C.P.A. and tax manager with Arthur Young & Co. focusing on the financing and taxation of REITs. Mr. Marcus has served as a member of the board of directors of Accelerator Corporation, of which he was one of the original architects and co-founders, CURE (Citizens United for Research in Epilepsy), Foundation for the National Institutes of Health (FNIH), Friends of Cancer Research, The Hamner Institutes for Health Sciences, Intra-Cellular Therapies, Inc., Multiple Myeloma Research Foundation, the Partnership for New York City and Rexford Industrial Realty, Inc. Mr. Marcus received B.A. and J.D. degrees from the University of California, Los Angeles. We believe that Mr. Marcus' extensive experience in the life science real estate industry and as a chief executive officer, as well as his training as a C.P.A. and attorney, provide him with the qualifications and skills to serve as a director of our company.

Beth Seidenberg, M.D. has served as a member of our board of directors since our founding in August 2012. Dr. Seidenberg is a General Partner at Kleiner Perkins Caufield & Byers, a venture capital firm, where she has primarily focused on life sciences investing since May 2005. Dr. Seidenberg was previously the Senior Vice President, Head of Global Development and Chief Medical Officer at Amgen, Inc., a biotechnology company. In addition, Dr. Seidenberg was a senior executive in research and development at Bristol Myers Squibb Company, a biopharmaceutical company, and Merck. Dr. Seidenberg received a B.S. from Barnard College and an M.D. from the University of Miami School of Medicine and completed her post-graduate training at The Johns Hopkins University, George Washington University and the National Institutes of Health. Dr. Seidenberg serves on the board of directors of TESARO and Epizyme, Inc. We believe that Dr. Seidenberg's extensive experience in the life sciences industry as a senior executive and venture capitalist, as well as her training as a physician, provide her with the qualifications and skills to serve as a director of our company.

Eckard Weber, M.D. has served as a member of our board of directors since 2013. Dr. Weber has served as a partner with Domain Associates, LLC, a private venture capital management firm focused on life sciences, since 2001. Dr. Weber has over 20 years of drug discovery and development experience. Dr. Weber also served as interim Chief Executive Officer and Chairman of the Board of Sonexa Therapeutics, a seed-stage biopharmaceutical company from 2007 until June 2014. Dr. Weber also serves as chairman of the board at Ocera Therapeutics, Orexigen Therapeutics and Tragara Pharmaceuticals, and is a member of the board of directors of Adynxx, Domain Elite Holdings and Tobira Therapeutics. He has been the founding Chief Executive Officer of multiple Domain Associates portfolio companies including Acea Pharmaceuticals, Ascenta Therapeutics, Calixa Therapeutics, Cytovia and Novacardia. Dr. Weber also served as chairman or a member of the boards of directors of a number of companies until their sale including Peninsula Pharmaceuticals (sold to Johnson & Johnson in 2005), Cerexa (sold to Forest Laboratories in 2007) and Calixa Therapeutics, Inc. (sold to

Cubist Therapeutics, Inc. in 2009). He also served as a member of the board of directors of Conforma Therapeutics (sold to Biogen-IDEC in 2006) and Cabrellis Pharmaceuticals (sold to Pharmion in 2006). Until 1995, he was a tenured Professor of Pharmacology at the University of California, Irvine. He is the inventor or co-inventor of numerous patents and patent applications, and he has published more than 130 papers in scientific periodicals. Dr. Weber received his German undergraduate degree from Kolping Kolleg in Germany and an M.D. from the University of Ulm Medical School in Germany. He received his postdoctoral training in neuroscience at Stanford University Medical School. We believe that Dr. Weber's extensive experience in the life sciences industry as an entrepreneur, chief executive officer and venture capitalist, as well as his training as a physician, provide him with the qualifications and skills to serve as a director of our company.

Each of our officers serves at the discretion of our board of directors. Each of our directors holds office until his or her successor is duly elected and qualified or until his or her earlier resignation or removal. There are no family relationships among any of our directors or executive officers.

Board Composition

Certain members of our board of directors were elected pursuant to the provisions of our voting agreement. Under this agreement, our stockholders that are party to the agreement have agreed to vote their shares to elect to our board of directors: (i) one director designated by KPCB Holdings, Inc. (Dr. Seidenberg); (ii) one director designated by Domain Partners VIII, L.P. (Dr. Weber); (iii) one director designated by Alexandria Equities, LLC (Mr. Marcus); (iv) the person serving as Chief Executive Officer (Dr. Ciechanover); and (v) two individuals to serve as independent directors (Dr. Gallagher and Mr. Fust). This agreement will terminate upon the completion of this offering.

Our board may establish the authorized number of directors from time to time by resolution. Our board of directors currently consists of six members. In accordance with our amended and restated certificate of incorporation to be filed in connection with this offering, immediately after this offering, our board of directors will be divided into three classes with staggered three-year terms. At each annual general meeting of stockholders, the successors to directors whose terms then expire will be elected to serve from the time of election and qualification until the third annual meeting following election. Our directors will be divided among the three classes as follows:

- the Class I directors will be and , and their terms will expire at the annual general meeting of stockholders to be held in 2015;
- the Class II directors will be and , and their terms will expire at the annual general meeting of stockholders to be held in 2016; and
- the Class III directors will be and , and their terms will expire at the annual general meeting of stockholders to be held in 2017.

We expect that any additional directorships resulting from an increase in the number of directors will be distributed among the three classes so that, as nearly as possible, each class will consist of one third of the directors. The division of our board of directors into three classes with staggered three-year terms may delay or prevent a change of our management or a change in control.

Director Independence

Generally, under the listing requirements and rules of Nasdaq, independent directors must comprise a majority of a listed company's board of directors within one year of the closing of this offering. Our board of directors has undertaken a review of its composition, the composition of its committees and the independence of each director. Our board of directors has determined that, other

than Isaac E. Ciechanover by virtue of his position as Chief Executive Officer, none of our directors has a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director and that each is "independent" as that term is defined under the listing requirements of Nasdaq. Accordingly, a majority of our directors is independent, as required under applicable Nasdaq rules. In making this determination, our board of directors considered the current and prior relationships that each non-employee director has with our company and all other facts and circumstances our board of directors deemed relevant in determining their independence, including the beneficial ownership of our capital stock by each non-employee director.

Lead Independent Director

Our board of directors has appointed Dr. Gallagher to serve as our lead independent director. As lead independent director, Dr. Gallagher presides over periodic meetings of our independent directors, serves as a liaison between our Chief Executive Officer and the independent directors and performs such additional duties as our board of directors may otherwise determine and delegate.

Board Committees

Our board of directors has established an audit committee, compensation committee and nominating and corporate governance committee. Our board of directors may establish other committees to facilitate the management of our business. The expected composition and functions of each committee upon completion of this offering are described below. Members serve on these committees until their resignation or until otherwise determined by our board of directors.

Audit Committee

Our audit committee consists of Dr. Gallagher, Mr. Fust and Mr. Marcus. Each of the members of our audit committee satisfies the independence requirements under Nasdaq listing standards and Rule 10A-3(b)(1) of the Exchange Act. The chair of our audit committee is Mr. Fust, who our board of directors has determined is an "audit committee financial expert" within the meaning of SEC regulations. Our board of directors has also determined that each member of our audit committee has the requisite financial expertise required under the applicable requirements of Nasdaq. In arriving at this determination, the board has examined each audit committee member's scope of experience and the nature of their employment in the corporate finance sector. The primary functions of this committee include:

- reviewing and approving the engagement of our independent registered public accounting firm to perform audit services and any permissible non-audit services;
- evaluating the performance of our independent registered public accounting firm and deciding whether to retain their services;
- monitoring the rotation of partners on our engagement team of our independent registered public accounting firm;
- reviewing our annual and quarterly financial statements and reports and discussing the statements and reports with our independent registered public accounting firm and management, including a review of disclosures under "Management's Discussion and Analysis of Financial Condition and Results of Operations;"
- considering and approving or disapproving all related party transactions;
- reviewing, with our independent registered public accounting firm and management, significant issues that may arise regarding accounting principles and financial statement presentation, as well as matters concerning the scope, adequacy and effectiveness of our financial controls;

- conducting an annual assessment of the performance of the audit committee and its members, and the adequacy of its charter; and
- establishing procedures for the receipt, retention and treatment of complaints received by us regarding financial controls, accounting or auditing matters.

Compensation Committee

Our compensation committee consists of Dr. Gallagher, Mr. Marcus and Dr. Weber, each of whom our board of directors has determined to be independent under Nasdaq listing standards and the rules and regulations of the SEC, a "non-employee director" as defined in Rule 16b-3 promulgated under the Exchange Act and an "outside director" as that term is defined in Section 162(m) of the Internal Revenue Code of 1986, as amended, or the Code. The chair of our compensation committee is Mr. Marcus. The functions of this committee include:

- determining the compensation and other terms of employment of our chief executive officer and our other executive officers and reviewing and approving corporate performance goals and objectives relevant to such compensation;
- reviewing and recommending to the full board of directors the compensation of our directors;
- evaluating and administering the equity incentive plans, compensation plans and similar programs advisable for us, as well as reviewing and recommending to our board of directors the adoption, modification or termination of our plans and programs;
- establishing policies with respect to equity compensation arrangements;
- reviewing with management our disclosures under the caption "Compensation Discussion and Analysis" and recommending to the full board its inclusion in our periodic reports to be filed with the SEC; and
- reviewing and evaluating, at least annually, the performance of the compensation committee and the adequacy of its charter.

Nominating and Corporate Governance Committee

Our nominating and corporate governance committee consists of Mr. Fust, Dr. Gallagher and Dr. Seidenberg, each of whom our board of directors has determined to be independent under Nasdaq listing standards. The chair of our nominating and corporate governance committee is Dr. Seidenberg. The functions of this committee include:

- reviewing periodically and evaluating director performance on our board of directors and its applicable committees, and recommending to our board of directors and management areas for improvement;
- interviewing, evaluating, nominating and recommending individuals for membership on our board of directors;
- reviewing and recommending to our board of directors any amendments to our corporate governance policies; and
- reviewing and assessing, at least annually, the performance of the nominating and corporate governance committee and the adequacy of its charter.

Code of Business Conduct and Ethics

In connection with this offering, our board of directors will adopt a code of business conduct and ethics that applies to all of our employees, officers and directors, including those officers responsible

for financial reporting. Upon completion of this offering, our code of business conduct and ethics will be available on our website at www.atarabio.com. We intend to disclose any amendments to the code, or any waivers of its requirements, on our website to the extent required by the applicable rules and exchange requirements. The inclusion of our website address in this prospectus does not include or incorporate by reference into this prospectus the information on or accessible through our website.

Compensation Committee Interlocks and Insider Participation

None of the members of the compensation committee is currently or has been at any time one of our officers or employees. None of our executive officers currently serves, or has served during the last year, as a member of the board of directors or compensation committee of any entity that has one or more executive officers serving as a member of our board of directors or compensation committee.

Non-Employee Director Compensation

The following table sets forth information regarding compensation earned by or paid to our non-employee directors during 2013. Directors who are affiliated with our major stockholders or who are employed by us receive no additional compensation for their services as directors and are not set forth in the table below. We have reimbursed and will continue to reimburse Mr. Fust and Dr. Gallagher for their travel, lodging and other reasonable expenses incurred in attending meetings of our board of directors and committees of our board of directors.

Name	Fees Earned or Paid in Cash	RSU Awards[1]	Total
Carol Gallagher	$ 30,000	$ —	$30,000

(1) RSUs granted to our employees and service providers prior to this offering vest upon the satisfaction of both (i) a service-based vesting condition and (ii) a liquidity-based vesting condition. The liquidity-based vesting condition for such RSUs is: (a) the effective date of our initial public offering; or (b) a change of control (as defined in our 2012 Plans). As of December 31, 2013, Dr. Gallagher held 58,333 RSUs (after giving effect to the nine-for-one exchange in our recapitalization). The service-based vesting condition is satisfied at a rate of 1/48th of the total number of shares underlying the RSUs each month following the vesting start date, which was March 8, 2013, subject to continued service to us through each vesting date. As of December 31, 2013, 10,937 RSUs had satisfied the service condition. With regard to the 58,333 RSUs granted to Dr. Gallagher only, the time-based vesting condition will be deemed satisfied upon satisfaction of the liquidity-based vesting condition. In accordance with FASB ASC 718 and ASC 505-50, no grant date value was recognized for such RSUs because the liquidity event condition was not determined to be probable at that time. Assumptions used in the calculation of these amounts are included in Note 2 to our combined financial statements included elsewhere in this prospectus. These amounts do not reflect the actual economic value realized by the director.

In February 2014, our board of directors approved an annual cash retainer for Mr. Fust of $20,000 for service as chairman of our audit committee, which will increase to $40,000 following this offering. In addition, our board of directors approved the grant of 33,333 RSUs to Mr. Fust, which will vest upon the satisfaction of both (i) a service-based vesting condition and (ii) a liquidity-based vesting condition. The liquidity-based vesting condition for such RSUs is (a) the effective date of our initial public offering or (b) a change of control (as defined in our 2012 Plans). The service condition will be satisfied as to 25% of the shares underlying the RSUs upon completion of one year of service measured from the vesting start date, and thereafter an additional 1/48th of the total number of shares underlying the RSUs will vest in monthly installments, subject to continued service through each such vesting date.

In April 2014, our board of directors approved an increase to Dr. Gallagher's annual cash retainer of $15,000, to a total of $45,000, effective following this offering. In addition, our board of directors approved the grant of 49,210 RSUs for Dr. Gallagher, subject to the same vesting terms as described above for Mr. Fust, except as to the service condition, which will be satisfied as to 1/48th of the total number of shares underlying the RSUs in monthly installments, subject to continued service through each such vesting date.

Upon completion of this offering, our board of directors may also establish a compensation program for our non-employee directors.

EXECUTIVE COMPENSATION

2013 Summary Compensation Table

The following table sets forth information regarding the compensation awarded to or earned by the executive officers listed below from Atara and its subsidiaries during the year ended December 31, 2013. Throughout this prospectus, these officers are referred to as our named executive officers.

Name and Principal Position	Year	Salary	Bonus[1]	Stock Awards	All Other Compensation[2]	Total
Isaac E. Ciechanover *Chief Executive Officer*	2013	$370,000	$187,100	$ —	$ 4,689	$561,789
Christopher Haqq *Chief Medical Officer*	2013	310,000	93,000	—	100,351	503,351
Gad Soffer *Chief Operating Officer*	2013	188,854	55,937	—[3]	949	245,740

(1) Amounts reported in this column represent discretionary bonuses approved in January 2014 by our board of directors for fiscal year 2013 company and individual performance and monthly bonus of $4,800 for Dr. Ciechanover and $10,000 sign-on bonus for Gad Soffer.

(2) Amounts reported in this column represent life insurance premiums paid on behalf of the named executive officers, and (a) in the case of Dr. Haqq, also includes $98,500, representing the value of a discounted purchase price for shares of our common stock that he purchased in March 2013, as discussed in more detail under "—Employment Arrangements—Christopher Haqq" below and (b) in the case of Dr. Ciechanover, also includes a $3,000 medical insurance opt-out benefit. See also Note 7 to our combined financial statements included elsewhere in this prospectus for the compensation expenses associated with this discounted stock purchase, and a discounted stock purchase in 2012 by Dr. Ciechanover.

(3) In March 2013, Mr. Soffer received an award of 200,000 RSUs (after giving effect to the nine-for-one exchange in our recapitalization) which vest upon the satisfaction of both (i) a service-based vesting condition and (ii) a liquidity-based vesting condition. The liquidity-based vesting condition for such RSUs is (a) the effective date of our initial public offering or (b) a change of control (as defined in our 2012 Plans). The service-based vesting condition will be satisfied as to 25% of the shares underlying the RSUs upon completion of one year of service measured from the vesting start date, and thereafter an additional 1/48th of the total number of shares underlying the RSUs will vest in monthly installments, subject to continued service through each such vesting date. In accordance with FASB ASC 718 and ASC 505-50, no grant date value was recognized for such RSUs because the liquidity event condition was not determined to be probable at that time. Assumptions used in the calculation of these amounts are included in Note 2 to our combined financial statements included elsewhere in this prospectus. These amounts do not reflect the actual economic value realized by Mr. Soffer.

Outstanding Equity Awards at December 31, 2013

The following table provides information regarding outstanding equity awards held by our named executive officers as of December 31, 2013.

		Stock Awards	
Name	Grant Date	Number of Shares or Units of Stock That Have Not Vested[1]	Market Value of Shares or Units of Stock That Have Not Vested[2]
Isaac E. Ciechanover	8/30/12	818,125[3]	$ 1,681,738
	8/30/12	77,000[4]	158,281
Christopher Haqq	3/4/2013	230,312[5]	473,429
	3/4/2013	5,000[6]	10,278
Gad Soffer	3/25/2013	200,000[7]	411,120

(1) All share numbers are reported after giving effect to the nine-for-one exchange in our recapitalization.

(2) Market value for RSUs and restricted stock awards is calculated by multiplying the number of shares that have not vested by $2.0556, the fair market value of one share of our common stock on December 31, 2013.

(3) Represents the unvested portion of 1,155,000 restricted shares purchased in August 2012 by the Isaac E. Ciechanover and Alison M. Ciechanover Family Trust dated 8/8/08, which shares are subject to vesting over four years, subject to Dr. Ciechanover's continuous service to us, commencing in October 2012.

(4) Represents the unvested portion of 231,000 restricted shares purchased by the Isaac E. Ciechanover and Alison M. Ciechanover Family Trust dated 8/8/08, which shares are subject to vesting according to performance criteria. These shares will vest upon completion of this offering.

(5) Represents the unvested portion of 334,999 restricted shares purchased in March 2013 by Dr. Haqq, which shares are subject to vesting over four years, subject to Dr. Haqq's continuous service to us, commencing in September 2012.

(6) Represents the unvested portion of 15,000 restricted shares purchased in March 2013 by Dr. Haqq, which shares are subject to vesting according to performance criteria. These shares will vest upon completion of this offering.

(7) Represents RSUs awarded in March 2013 under the 2012 Plans, which are subject to both (i) a service-based vesting condition and (ii) a liquidity-based vesting condition. The service-based vesting condition will be satisfied as to 25% of the shares underlying the RSUs upon completion of one year of service measured from the vesting start date, which is March 25, 2013, and thereafter an additional 1/48th of the total number of shares underlying the RSUs will vest in monthly installments, subject to continued service through each such vesting date. The liquidity-based vesting condition will be satisfied upon completion of this offering.

Employment Arrangements

We have entered into employment agreements with each of the named executive officers in connection with his commencement of employment with us. With the exception of his own arrangement, each of these employment agreements was negotiated on our behalf by our Chief Executive Officer, with the oversight and approval of our board of directors.

These arrangements provide for "at will" employment and set forth the initial terms and conditions of employment of each executive officer, including base salary, target bonus opportunity, standard employee benefit plan participation, a recommendation for initial equity awards, opportunities for post-employment compensation and vesting acceleration terms. These employment agreements were each subject to execution of our standard proprietary information and inventions agreement. See also "—Employee Benefit Plans —The 2012 Plans" below for a discussion of certain accelerated vesting benefits on a change in control of Atara, Nina, Pinta or Santa Maria.

Isaac E. Ciechanover

We entered into an amended and restated employment agreement with Isaac E. Ciechanover, our President and Chief Executive Officer, in March 2014. The employment agreement provides for a base salary of $381,100, a target monthly bonus of $4,800 and a target annual bonus of $133,385.

Pursuant to Dr. Ciechanover's original employment agreement, he was given the right to purchase 1,155,000 shares of common stock. These shares, which were purchased in August 2012, vest over four years commencing in October 2012. However, in the event we engage in a change in control, all of these shares will vest upon the completion of such change in control. In addition, Dr. Ciechanover's original employment agreement gave Dr. Ciechanover the right to purchase an additional 231,000 shares of common stock. Of these shares, which were also purchased in August 2012, 154,000 have vested based on the completion of our prior equity financings and other performance criteria. The remaining 77,000 shares will vest as a result of the completion of this offering. We have the right to repurchase all unvested shares at their original cost of $0.003 per share in the event Dr. Ciechanover ceases to be in continuous service to us. At the time of purchase, we determined the fair market value of the shares being purchased to be $0.09 per share. Per the terms of Dr. Ciechanover's original employment agreement, we paid him a bonus of $101,689 in 2012 in order to reimburse him for the income taxes attributable to purchasing the shares for less than their fair market value.

In the event Dr. Ciechanover's employment is terminated by us without cause, he will be entitled to receive the following benefits:

- A lump-sum severance payment equal to the sum of six months of his then-current base salary, six months of his target monthly bonus, six months of health insurance premiums and, if we pay bonuses to any other employee during the fiscal year in which Dr. Ciechanover's employment terminates, 100% of his target bonus for that year; and
- Vesting of his stock to the extent of the number of shares that would have vested during the six months following termination of employment had his employment not terminated.

The receipt of any termination-based payments or benefits by Dr. Ciechanover is subject to his execution and the effectiveness of a release of claims against Atara.

Christopher Haqq

We entered into an amended and restated employment agreement with Christopher Haqq, our Chief Medical Officer, in March 2014. The employment agreement provides for a base salary of $319,300 and a target annual bonus of $95,790.

Pursuant to Dr. Haqq's original employment agreement, Dr. Haqq was granted the right to purchase 349,999 shares of common stock. These shares were purchased in March 2013 at a discounted purchase price of $0.9462 per share (at a time when our common stock had a value of $1.26 per share). Of these shares, 334,999 vest over four years commencing in September 2012. However, in the event we engage in a change in control, all of these shares will vest upon the completion of such change in control. The remaining 15,000 shares of common stock are subject to performance- based vesting, 5,000 of which have previously vested based on the completion of our prior equity financings and other performance criteria, 5,000 of which have previously vested upon completion of the pre-IND submission for STM 434 and other performance criteria, and 5,000 shares of which will vest as a result of the completion of this offering. We have the right to repurchase all unvested shares at their original cost of $0.9462 per share in the event Dr. Haqq ceases to be in continuous service to us.

In the event Dr. Haqq's employment is terminated by us without cause, he will be entitled to receive the following benefits:

- A lump-sum severance payment equal to the sum of three months of his then-current base salary and three months of health insurance premiums; and
- Vesting of his stock to the extent of the number of shares that would have vested during the three months following termination of employment had his employment not terminated.

The receipt of any termination-based payments or benefits by Dr. Haqq is subject to his execution and the effectiveness of a release of claims against Atara.

Gad Soffer

We entered into an amended and restated employment agreement with Gad Soffer, our Chief Operating Officer, in March 2014. The employment agreement provides for a base salary of $252,350 and a target annual bonus of $63,088. Mr. Soffer is not entitled to any termination-based payments or benefits under the terms of his employment agreement.

Employee Benefit Plans

The principal features of our equity incentive plans are summarized below. These summaries are qualified in their entirety by reference to the actual text of the plans, which are filed as exhibits to the registration statement of which this prospectus is a part.

2014 Equity Incentive Plan

Our board of directors adopted our 2014 Plan in March 2014 and amended and restated our 2014 Plan in May 2014. Our stockholders approved our 2014 Plan in June 2014. Our 2014 Plan is the successor to and continuation of the 2012 Plans (defined and described below). Our 2014 Plan provides for the grant of incentive stock options, or ISOs, to our employees and for the grant of nonstatutory stock options, or NSOs, stock appreciation rights, restricted stock awards, RSU awards, performance stock awards, performance cash awards, and other forms of equity compensation to our employees, directors, and consultants.

Authorized shares. The maximum number of shares of our common stock that may be issued pursuant to stock awards under our 2014 Plan is equal to 4,584,000. Additionally, the number of shares of our common stock reserved for issuance pursuant to stock awards under our 2014 Plan will automatically increase on January 1 of each year for a period of up to ten years, beginning on January 1, 2015 and ending on and including January 1, 2024, by 5% of the total number of shares of our capital stock outstanding on December 31 of the preceding calendar year, or a lesser number of shares determined by our board of directors. The maximum number of shares of our common stock that may be issued upon the exercise of ISOs under our 2014 Plan is 15,000,000.

Shares subject to stock awards granted under our 2014 Plan that expire or terminate without being exercised in full, or that are paid out in cash rather than in shares, do not reduce the number of shares available for issuance under our 2014 Plan. Additionally, shares issued pursuant to stock awards under our 2014 Plan that we repurchase or that are forfeited, as well as shares used to pay the exercise price of a stock award or to satisfy the tax withholding obligations related to a stock award, become available for future grant under our 2014 Plan.

Plan administration. Our board of directors, or a duly authorized committee of our board of directors, will administer our 2014 Plan. Our board of directors may also delegate to one or more of our officers the authority to (1) designate employees (other than officers) to receive specified stock awards, and (2) determine the number of shares subject to such stock awards. Subject to the terms of our 2014 Plan, the board of directors has the authority to determine the terms of awards, including recipients, the exercise, purchase or strike price of stock awards, if any, the number of shares subject to each stock award, the fair market value of a share of our common stock, the vesting schedule applicable to the awards, together with any vesting acceleration, and the form of consideration, if any, payable upon exercise or settlement of the award and the terms of the award agreements for use under our 2014 Plan.

The board of directors has the power to modify outstanding awards under our 2014 Plan. The board of directors has the authority to reprice any outstanding option or stock appreciation right, cancel any outstanding stock award in exchange for new stock awards, cash or other consideration, or take any other action that is treated as a repricing under GAAP, with the consent of any adversely affected participant.

Section 162(m) limits. At such time as necessary for compliance with Section 162(m) of the Code, no participant may be granted stock awards that are intended to comply with Section 162(m) of the Code covering more than 2,000,000 shares of our common stock under our 2014 Plan during any calendar year pursuant to stock options, stock appreciation rights and other stock awards whose value is determined by reference to an increase over an exercise price or strike price of at least 100% of the fair market value of our common stock on the date of grant. Additionally, no participant may be granted in a calendar year a performance stock award covering more than 2,000,000 shares of our common stock or a performance cash award having a maximum value in excess of $2,000,000 under our 2014 Plan. These limitations are intended to give us the flexibility to grant compensation that will not be subject to the $1,000,000 annual limitation on the income tax deductibility imposed by Section 162(m) of the Code.

Performance awards. We believe our 2014 Plan permits the grant of performance-based stock and cash awards that may qualify as performance-based compensation that is not subject to the

$1,000,000 limitation on the income tax deductibility imposed by Section 162(m) of the Code. Our compensation committee may structure awards so that the stock or cash will be issued or paid only following the achievement of certain pre-established performance goals during a designated performance period.

Our compensation committee may establish performance goals by selecting from one or more of the following performance criteria: (1) profit before tax; (2) billings; (3) revenues; (4) net revenues; (5) earnings (which may include earnings before interest and taxes, earnings before taxes, and net earnings); (6) operating income; (7) operating margin; (8) operating profit; (9) controllable operating profit, or net operating profit; (10) net profit; (11) gross margin; (12) operating expenses or operating expenses as a percentage of revenue; (13) net income; (14) earnings per share; (15) total stockholder return; (16) market share; (17) return on assets or net assets; (18) our stock price; (19) growth in stockholder value relative to a pre-determined index; (20) return on equity; (21) return on invested capital; (22) cash flow (including free cash flow or operating cash flows); (23) cash conversion cycle; (24) economic value added; (25) individual confidential business objectives; (26) contract awards or backlog; (27) overhead or other expense reduction; (28) credit rating; (29) strategic plan development and implementation; (30) succession plan development and implementation; (31) improvement in workforce diversity; (32) customer indicators; (33) new product invention or innovation; (34) attainment of research and development milestones; (35) improvements in productivity; (36) bookings; (37) initiation of phases of clinical trials and/or studies by specified dates; (38) regulatory body approval with respect to products, studies and/or trials; (39) patient enrollment dates; (40) commercial launch of products; and (41) to the extent that an award is not intended to comply with Section 162(m) of the Code, other measures of performance selected by our board of directors or compensation committee.

Our compensation committee may establish performance goals on a company-wide basis, with respect to one or more business units, divisions, affiliates, or business segments, and in either absolute terms or relative to the performance of one or more comparable companies or the performance of one or more relevant indices. Unless otherwise specified by our board of directors (i) in the award agreement at the time the award is granted or (ii) in such other document setting forth the performance goals at the time the performance goals are established, our compensation committee will appropriately make adjustments in the method of calculating the attainment of the performance goals as follows: (1) to exclude restructuring and/or other nonrecurring charges; (2) to exclude exchange rate effects; (3) to exclude the effects of changes to GAAP; (4) to exclude the effects of any statutory adjustments to corporate tax rates; (5) to exclude the effects of any “extraordinary items” as determined under GAAP; (6) to exclude the dilutive effects of acquisitions or joint ventures; (7) to assume that any business divested by our company achieved performance objectives at targeted levels during the balance of a performance period following such divestiture; (8) to exclude the effect of any change in the outstanding shares of our common stock by reason of any stock dividend or split, stock repurchase, reorganization, recapitalization, merger, consolidation, spin-off, combination or exchange of shares or other similar corporate change, or any distributions to common stockholders other than regular cash dividends; (9) to exclude the effects of stock based compensation and the award of bonuses under our bonus plans; (10) to exclude costs incurred in connection with potential acquisitions or divestitures that are required to be expensed under GAAP; (11) to exclude the goodwill and intangible asset impairment charges that are required to be recorded under GAAP; (12) to exclude the effect of any other unusual, non-recurring gain or loss or other extraordinary item; (13) to exclude the effects of the timing of acceptance for review and/or approval of submissions to the FDA or any other regulatory body; and (14) to exclude the effects of entering into or achieving milestones involved in licensing joint ventures.

Corporate transactions. Our 2014 Plan provides that in the event of certain specified significant corporate transactions, as defined under our 2014 Plan, each outstanding award will be treated as the administrator determines. The administrator may (1) arrange for the assumption,

continuation or substitution of a stock award by a successor corporation; (2) arrange for the assignment of any reacquisition or repurchase rights held by us to a successor corporation; (3) accelerate the vesting, in whole or in part, of the stock award and provide for its termination prior to the transaction; (4) arrange for the lapse, in whole or in part, of any reacquisition or repurchase rights held by us; (5) cancel or arrange for the cancellation of the stock award prior to the transaction in exchange for a cash payment, if any, determined by the board of directors; or (6) cancel or arrange for the cancellation of the stock award prior to the transaction in exchange for a payment, in such form as may be determined by our board of directors equal to the excess, if any, of the value of the property the participant would have received upon the exercise of the stock award immediately prior to the transaction over any exercise price payable by such holder in connection with such exercise. The plan administrator is not obligated to treat all stock awards or portions of stock awards, even those that are of the same type, in the same manner.

Transferability. A participant may not transfer stock awards under our 2014 Plan other than by will, the laws of descent and distribution, or as otherwise provided under our 2014 Plan.

Plan amendment or termination. Our board of directors has the authority to amend, suspend, or terminate our 2014 Plan, provided that such action does not materially impair the existing rights of any participant without such participant's written consent. No awards may be granted after the tenth anniversary of the date our board of directors adopted our 2014 Plan. No stock awards may be granted under our 2014 Plan while it is suspended or after it is terminated.

The 2012 Plans

The board of directors of each of Nina, Pinta and Santa Maria initially adopted, and their stockholders approved, substantially the same form of equity incentive plan in November 2012, which we refer to as the 2012 Plans. The 2012 Plans each provide for the grant of stock options (ISOs and NSOs), stock appreciation rights, restricted stock awards and RSU awards to their employees, directors, and consultants. To date, only restricted stock awards and RSUs have been awarded under the 2012 Plans. Prior to the recapitalization, each RSU granted under a 2012 Plan covered shares of common stock of Nina, Pinta or Santa Maria, as applicable. In connection with the recapitalization, we assumed the 2012 Plans and all outstanding RSUs issued under such plans and, as a result, all RSUs granted under each such plan automatically became settleable for shares of our common stock.

Upon the recapitalization and the adoption of our 2014 Plan, no additional awards shall be granted under any 2012 Plan in the future. However, any outstanding RSUs already granted under a 2012 Plan will remain outstanding, subject to the terms of such plans and the applicable RSU award agreements, until such outstanding awards are settled or until they terminate or expire by their terms.

Authorized Shares. The maximum number of shares of our common stock that may be issued directly or indirectly under the 2012 Plans was 3,183,999 (after giving effect to the nine-for-one exchange in our recapitalization).

Plan Administration. Our board of directors administers the 2012 Plans. Subject to the terms of the 2012 Plans, the board of directors has the authority to determine, amend and rescind rules and regulations of the Plan.

Corporate Transactions. The 2012 Plans each provide that in the event of certain specified significant corporate transactions, each outstanding award will be subject to the terms of the applicable transaction agreement. Such transaction agreement may provide, without limitation, for the assumption or substitution of awards, for their continuation, for accelerated vesting or for cancellation with or without consideration, in all cases without the consent of the award holder.

Accelerated Vesting of RSUs upon Change in Control. Each RSU awarded under a 2012 Plan to our named executive officers and directors provides that upon a change in control of Nina, Pinta or Santa Maria, the service-based vesting condition for such entity undergoing a change in control will be satisfied upon the occurrence of such change in control. In addition, in connection with our recapitalization we amended the RSUs held by our named executive officers and directors to provide that on a change in control of Atara, all RSUs (regardless of the 2012 Plan under which they were issued) the service-based vesting condition for RSUs will become fully vested upon the occurrence of such change in control.

Plan Amendment or Termination. Our board of directors has the authority to amend, or terminate the 2012 Plans, provided that such action does not materially impair the existing rights of any participant without such participant's written consent. As described above, no future equity awards will be granted under such plans.

2014 Employee Stock Purchase Plan

Our board of directors adopted our ESPP in May 2014, and our stockholders approved our ESPP in June 2014. Our ESPP includes both a component that is intended to qualify as an employee stock purchase plan under Section 423 of the Code and a component that is not intended to so qualify. The purpose of the non-423 component of our ESPP is to authorize the grant of purchase rights that do not meet the requirements of an employee stock purchase plan to achieve tax, regulatory or other objectives. The first offering period under our ESPP will begin and end upon a date to be approved by our board of directors or the compensation committee.

Authorized shares. The maximum aggregate number of shares of our common stock that may be issued under our ESPP is 300,000 shares. Additionally, the number of shares of our common stock reserved for issuance under our ESPP will increase automatically each year for a period of up to ten years, beginning on January 1, 2015 and continuing through and including January 1, 2024, by the lesser of (1) 1% of the total number of shares of our capital stock outstanding on December 31 of the preceding calendar year; (2) 300,000 shares of common stock; or (3) such lesser number as determined by our board of directors. The stock purchasable under the ESPP will be shares of authorized but unissued or reacquired common stock, including shares repurchased by us in the open market. Shares subject to purchase rights granted under our ESPP that terminate without having been exercised in full will be available for grant under our ESPP.

Plan administration. Our board of directors will administer our ESPP. Our board of directors may delegate authority to administer our ESPP to our compensation committee. The administrator may approve offerings with a duration of not more than 27 months, and may specify one or more shorter purchase periods within each offering. Each offering will have one or more purchase dates on which shares of our common stock will be purchased for the employees who are participating in the offering. The administrator, in its discretion, will determine the terms of offerings under our ESPP including determining which of our designated affiliates will be eligible to participate in the 423 component of our ESPP and which of our designated affiliates will be eligible to participate in the non-423 component of our ESPP.

Eligibility. Our employees, including executive officers, may have to satisfy one or more of the following service requirements before participating in our ESPP, as determined by the administrator: (1) customary employment for more than 20 hours per week and more than five months per calendar year, or (2) continuous employment for a minimum period of time, not to exceed two years. An employee may not be granted rights to purchase stock under our ESPP if such employee (a) immediately after the grant would own stock possessing 5% or more of the total combined voting power or value of our common stock; or (b) holds rights to purchase stock under our ESPP that would accrue at a rate that exceeds $25,000 worth of our stock for each calendar year that the rights remain outstanding.

Purchase rights and purchase price. Our ESPP permits participants to purchase shares of our common stock through payroll deductions or other methods with up to 15% of their earnings. The purchase price of the shares will be not less than 85% of the lower of the fair market value of our common stock on the first day of an offering or on the date of purchase.

Transferability. A participant may not transfer purchase rights under our ESPP other than by will, the laws of descent and distribution, or as otherwise provided under our ESPP.

Corporate transactions. In the event of a specified corporate transaction, such as a merger or change in control, a successor corporation may assume, continue or substitute each outstanding purchase right. If the successor corporation does not assume, continue or substitute for the outstanding purchase rights, the offering in progress may be shortened and a new exercise date will be set, so that the participants' purchase rights can be exercised and terminate immediately thereafter.

Plan amendment or termination. Our board of directors has the authority to amend, suspend or terminate our ESPP, at any time and for any reason. Any benefits, privileges, entitlements and obligations under any outstanding purchase rights granted before an amendment, suspension or termination of the ESPP will not be materially impaired except (1) with the participant's consent; (2) to comply with any laws, listing requirements, or regulations; or (3) to obtain or maintain favorable tax, listing or regulatory treatment.

Limitation on Liability and Indemnification Matters

Our amended and restated certificate of incorporation and restated bylaws, each to be effective upon the completion of this offering, will provide that we will indemnify our directors and officers, and may indemnify our employees and other agents, to the fullest extent permitted by the Delaware General Corporation Law. However, Delaware law prohibits our amended and restated certificate of incorporation from limiting the liability of our directors for the following:

- any breach of a director's duty of loyalty to us or to our stockholders;
- acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law;
- unlawful payment of dividends or unlawful stock repurchases or redemptions; and
- any transaction from which a director derived an improper personal benefit.

If Delaware law is amended to authorize corporate action further eliminating or limiting the personal liability of a director, then the liability of our directors will be eliminated or limited to the fullest extent permitted by Delaware law, as so amended. Our amended and restated certificate of incorporation does not eliminate a director's duty of care and, in appropriate circumstances, equitable remedies, such as injunctive or other forms of non-monetary relief, remain available under Delaware law. It also does not affect a director's responsibilities under any other laws, such as the federal securities laws or other state or federal laws. Under our amended and restated bylaws, we will also be empowered to enter into indemnification agreements with our directors, officers, employees and other agents and to purchase insurance on behalf of any person whom we are required or permitted to indemnify.

In addition to the indemnification required in our amended and restated certificate of incorporation and amended and restated bylaws, we have entered into indemnification agreements with each of our current directors and executive officers. These agreements provide for the indemnification of such persons for all reasonable expenses and liabilities incurred in connection with any action or proceeding brought against them by reason of the fact that they are or were serving in such capacity. We believe that these certificate of incorporation and bylaws provisions and indemnification agreements are necessary to

attract and retain qualified persons as directors, officers and employees. Furthermore, we have obtained director and officer liability insurance to cover liabilities our directors and officers may incur in connection with their services to us and expect to increase the level upon completion of this offering.

The limitation of liability and indemnification provisions in our amended and restated certificate of incorporation and amended and restated bylaws may discourage stockholders from bringing a lawsuit against directors for breach of their fiduciary duties. They may also reduce the likelihood of derivative litigation against directors and officers, even though an action, if successful, might benefit us and our stockholders. A stockholder's investment may be harmed to the extent we pay the costs of settlement and damage awards against directors and officers pursuant to these indemnification provisions. Insofar as indemnification for liabilities arising under the Securities Act of 1933, as amended, or the Securities Act, may be permitted to our directors, officers and controlling persons pursuant to the foregoing provisions, or otherwise, we have been advised that, in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act, and is, therefore, unenforceable. There is no pending litigation or proceeding naming any of our directors or officers as to which indemnification is being sought, nor are we aware of any pending or threatened litigation that may result in claims for indemnification by any director or officer.

CERTAIN RELATIONSHIPS AND RELATED PERSON TRANSACTIONS

The following is a description of transactions since our formation in August 2012, to which we have been a party, in which the amount involved exceeded or will exceed $120,000, and in which any of our executive officers, directors, promoters or holders of more than 5% of any class of our voting securities, or an affiliate or immediate family member thereof, had or will have a direct or indirect material interest, other than compensation, termination and change in control arrangements, which are described under "Executive Compensation." Dr. Ciechanover, our Chief Executive Officer and founder, and entities affiliated with Kleiner Perkins Caufield & Byers may be deemed to be promoters within the meaning of SEC rules under the Securities Act. We believe the terms obtained or consideration that we paid or received, as applicable, in connection with the transactions described below were comparable to terms available or the amounts that would be paid or received, as applicable, in arm's-length transactions with unrelated third parties.

Series A Preferred Stock Financing

In October 2012, January 2013 and March 2013, we issued and sold an aggregate of 6,695,913 shares of our Series A preferred stock for approximately $3.00 per share, for aggregate consideration of $20,087,750. The table below sets forth the number of shares of Series A preferred stock purchased by our executive officers, directors and stockholders who held more than 5% of any class of our voting securities and their affiliates, to the extent they purchased in excess of $120,000 of our Series A preferred stock. For each share of preferred stock set forth in the table below, the holder will receive, upon conversion, one share of our common stock immediately prior to the completion of this offering.

	Number of Shares of Series A Preferred Stock	Aggregate Purchase Price
Entities affiliated with Kleiner Perkins Caufield & Byers[1]	1,666,666	$5,000,000
Entities affiliated with Domain Associates[2]	1,666,666	$5,000,000
Entities affiliated with DAG Ventures	1,666,666	$5,000,000
Inmobiliaria Carso S.A. de C.V.	1,166,666	$3,500,000
Alexandria Real Estate Equities, Inc.[3]	333,333	$1,000,000

(1) Beth Seidenberg, a member of our board of directors, is affiliated with Kleiner Perkins Caufield & Byers.
(2) Eckard Weber, a member of our board of directors, is associated with Domain Associates. Dr. Weber has no voting or dispositive control with respect to the shares held by entities affiliated with Domain Associates.
(3) Joel S. Marcus, a member of our board of directors, is affiliated with Alexandria Real Estate Equities, Inc.

Amgen Agreements and Series A-1 Preferred Stock Issuance

For a description of our agreements with Amgen, see "Business—License Agreements." In consideration for entering into our exclusive license agreements with Amgen, we also issued 800,000 shares of our Series A-1 preferred stock to Amgen. Amgen will receive, upon conversion, one share of our common stock for each share of Series A-1 preferred stock held by Amgen immediately prior to the completion of this offering.

Series B Preferred Stock Financing

In November 2013 and January 2014, we issued and sold an aggregate of 8,492,174 shares of our Series B preferred stock for approximately $6.12 per share, for aggregate consideration of $52,000,158. The table below sets forth the number of shares of Series B preferred stock purchased by our executive officers, directors and stockholders who held more than 5% of any class of our voting securities and their affiliates, to the extent they purchased more than $120,000 of our Series B preferred stock. For each share of preferred stock set forth in the table below, the holder will receive, upon conversion, one share of our common stock immediately prior to the completion of this offering.

	Number of Shares of Series B Preferred Stock	Aggregate Purchase Price
Entities affiliated with The Baupost Group, L.L.C.	2,204,693	$13,500,001
Celgene Corporation	1,633,106	$10,000,000
Amgen Inc.	816,553	$ 4,999,999
Entities affiliated with Domain Associates(1)	812,998	$ 4,978,233
Entities affiliated with DAG Ventures	812,997	$ 4,978,233
Entities affiliated with Kleiner Perkins Caufield & Byers(2)	812,981	$ 4,978,129
Alexandria Real Estate Equities, Inc.(3)	652,529	$ 3,995,631
Inmobiliaria Carso S.A. de C.V.	569,098	$ 3,484,762

(1) Eckard Weber, a member of our board of directors, is associated with Domain Associates. Dr. Weber has no voting or dispositive control with respect to the shares held by entities affiliated with Domain Associates.
(2) Beth Seidenberg, a member of our board of directors, is affiliated with Kleiner Perkins Caufield & Byers.
(3) Joel S. Marcus, a member of our board of directors, is affiliated with Alexandria Real Estate Equities, Inc.

Voting Agreement

We have entered into a voting agreement with certain holders of our common stock and preferred stock, including certain of our named executive officers and directors and entities with which certain of our directors are affiliated, with respect to the election of our directors and certain other matters. All of our current directors were elected pursuant to the terms of this agreement. The voting agreement will terminate upon the closing of this offering. For more information, see “Management—Board Composition.”

Right of First Refusal and Co-Sale Agreement

We have entered into a right of first refusal and co-sale agreement with certain holders of our common stock and preferred stock, including certain of our named executive officers and directors and entities with which certain of our directors are affiliated. This agreement provides the holders of preferred stock a right of purchase and a right of co-sale in respect of sales of securities by certain holders of our common stock and preferred stock. These rights of purchase and co-sale will terminate upon the closing of this offering.

Investors’ Rights Agreement

We have entered into an investors’ rights agreement with certain holders of our common stock and preferred stock, including certain of our named executive officers and directors and entities with which certain of our directors are affiliated. This agreement provides that the holders of common stock issuable upon conversion of our preferred stock have the right to demand that we file a registration

statement or request that their shares of common stock be covered by a registration statement that we are otherwise filing. With respect to this offering, the registration rights have been validly waived. In addition to the registration rights, the investors' rights agreement provides for certain information rights and rights of first refusal. The provisions of the investors' rights agreement, other than those relating to registration rights, will terminate upon the closing of this offering. For more information regarding this agreement, see "Description of Capital Stock—Registration Rights."

Indemnification Agreements

We have entered into indemnification agreements with each of our directors and executive officers. For more information regarding these agreements, see "Executive Compensation—Limitation on Liability and Indemnification Matters."

Policies and Procedures for Transactions with Related Persons

We intend to adopt a policy that our executive officers, directors, nominees for election as a director, beneficial owners of more than 5% of any class of our common stock and any members of the immediate family of any of the foregoing persons are not permitted to enter into a related person transaction with us without the prior consent of our audit committee. Any request for us to enter into a transaction with an executive officer, director, nominee for election as a director, beneficial owner of more than 5% of any class of our voting securities or any member of the immediate family of any of the foregoing persons, in which the amount involved exceeds $120,000 and such person would have a direct or indirect interest, must first be presented to our audit committee for review, consideration and approval. In approving or rejecting any such proposal, our audit committee is to consider the material facts of the transaction, including, but not limited to, whether the transaction is on terms no less favorable than terms generally available to an unaffiliated third party under the same or similar circumstances and the extent of the related person's interest in the transaction. All of the transactions described above were entered into prior to the adoption of such policy, but after presentation, consideration and approval by our board of directors.

PRINCIPAL STOCKHOLDERS

The following table sets forth, as of March 31, 2014, information regarding beneficial ownership of our capital stock by:

- each person, or group of affiliated persons, known by us to beneficially own more than 5% of our common stock;
- each of our named executive officers;
- each of our directors; and
- all of our current executive officers and directors as a group.

Beneficial ownership is determined according to the rules of the SEC and generally means that a person has beneficial ownership of a security if he, she or it possesses sole or shared voting or investment power of that security, including RSUs pursuant to which securities may issue within 60 days of March 31, 2014. Except as indicated by the footnotes below, we believe, based on the information furnished to us, that the persons named in the table below have sole voting and investment power with respect to all shares of common stock shown that they beneficially own, subject to community property laws where applicable. The information does not necessarily indicate beneficial ownership for any other purpose, including for purposes of Sections 13(d) and 13(g) of the Securities Act.

Our calculation of the percentage of beneficial ownership prior to this offering is based on 18,724,086 shares of our common stock (including preferred stock on an as-converted basis) outstanding as of March 31, 2014. We have based our calculation of the percentage of beneficial ownership after this offering on shares of our common stock and shares of our common stock outstanding immediately after the closing of this offering (assuming no exercise of the underwriters' option to purchase additional shares of common stock).

Unless otherwise indicated, the address of each beneficial owner listed in the table below is c/o Atara Biotherapeutics, Inc., 3260 Bayshore Boulevard, Brisbane, California 94005.

Name of beneficial owner	Number of Shares Beneficially Owned	Percentage of Shares Beneficially Owned	
		Before Offering	After Offering
5% Stockholders:			
Entities affiliated with Kleiner Perkins Caufield & Byers[1]	3,479,647	18.6%	
Entities affiliated with Domain Associates[2]	2,479,664	13.2%	
Entities affiliated with DAG Ventures[3]	2,479,663	13.2%	
Entities affiliated with the Baupost Group LLC[4]	2,204,693	11.8%	
Inmobiliaria Carso S.A. de C.V.[5]	1,735,764	9.3%	
Celgene Corporation[6]	1,633,106	8.7%	
Amgen Inc.[7]	1,616,553	8.6%	
Isaac E. Ciechanover[8]	1,386,000	7.4%	
Alexandria Real Estate Equities, Inc.[9]	985,862	5.3%	
Executive Officers and Directors:			
Isaac E. Ciechanover[8]	1,386,000	7.4%	
Mitchall G. Clark[10]	—	—	
Christopher Haqq[11]	349,999	1.9%	
John F. McGrath, Jr.[12]	—	—	—
Gad Soffer[13]	—	—	—
Matthew K. Fust[14]	—	—	—
Carol Gallagher[15]	43,518	*	*
Joel S. Marcus[9]	985,862	5.3%	
Beth Seidenberg[1]	3,479,647	18.6%	
Eckard Weber[2]	—	—	
All executive officers and directors as a group (10 persons)[16]	6,245,026	33.4%	

* Represents beneficial ownership of less than 1% of the outstanding common stock.

(1) Consists of 3,378,737 shares of common stock held by Kleiner Perkins Caufield & Byers XV, LLC ("KPCB XV") and 100,910 shares of common stock held by KPCB XV Founders Fund, LLC ("KPCB XV FF"). All shares are held for convenience in the name of "KPCB Holdings, Inc., as nominee" for the accounts of such entities. The managing member of KPCB XV and KPCB XV FF is KPCB XV Associates, LLC ("KPCB XV Associates"). Michael Abbott, L. John Doerr, William Gordon, Wen Hsieh, Randy Komisar, Matthew Murphy, Theodore Schlein and Dr. Seidenberg, the managing members of KPCB XV Associates, exercise shared voting and dispositive control over the shares held by KPCB XV. Dr. Seidenberg disclaims beneficial ownership of all shares held by KPCB XV except to the extent of her pecuniary interest therein. The principal business address for all entities and individuals affiliated with Kleiner Perkins Caufield & Byers is 2750 Sand Hill Road, Menlo Park, CA 94025.

(2) Includes 2,461,400 shares of common stock held by Domain Partners VIII, L.P. and 18,264 shares of common stock held by DP VIII Associates, L.P. The general partner of Domain Partners VIII, L.P. and DP VIII Associates, L.P. is One Palmer Square Associates VIII, L.P. James C. Blair, Brian H. Dovey, Jesse I. Treu, Kathleen K. Schoemaker, Brian K. Halak and Nicole Vitullo, the managing members of One Palmer Square Associates VIII, L.L.C., share the power to vote or dispose of the shares held by each such entity. Dr. Weber, a member of our board of directors is an employee of Domain Associates and a member of One Palmer Square Associates VIII, L.L.C. Dr. Weber has no voting or investment control with respect to any of the above noted holdings. Dr. Weber disclaims beneficial ownership of the shares reflected above as beneficially owned by Domain Partners VIII, L.P. and DP VIII Associates, L.P. except to the extent of his pecuniary interest therein. The principal business address of Domain Partners VIII, L.P. and DP VIII Associates, L.P. is One Palmer Square, Suite 515, Princeton, NJ 08542.

(3) Includes 2,473,638 shares of common stock held by DAG Ventures V-QP, L.P. and 6,025 shares of common stock held by DAG Ventures V, L.P. The general partner of DAG Ventures V, L.P. is DAG Ventures Management V, LLC. John J. Cadeddu, Greg Williams, Young J. Chung, Nick Pianim and R. Thomas Goodrich, the managing members of DAG Ventures Management V, LLC, share the power to vote or dispose of the shares held by each such entity. The principal business address of DAG Ventures V-QP, L.P. and DAG Ventures V, L.P. is 251 Lytton Avenue, Suite 200, Palo Alto, CA 94301.

(4) The Baupost Group, LLC, of Baupost, manager to Baupost Group Securities, L.L.C., and each of SAK Corp., the manager of Baupost, and Seth A. Klarman, the director of SAK Corp., may be deemed to share voting and investment power with respect to such shares. Baupost's address is 10 St. James Avenue, Suite 1700, Boston, MA 02116.

(5) Represents shares held by Control Empresarial de Capitales, S.A. de C.V., a subsidiary of Inmobiliaria Carso S.A. de C.V., or Inmobiliaria. Carlos Slim Helú, Carlos Slim Domit, Marco Antonio Slim Domit, Patrick Slim Domit, María Soumaya Slim Domit, Vanessa Paola Slim Domit and Johanna Monique Slim Domit are beneficiaries of a Mexican trust that in turn owns substantially all of the issued and outstanding voting securities of Inmobiliaria. The address for this stockholder is c/o Inmobiliaria Carso S.A. de C.V., Paseo de las Palmas 750, 6th Floor, Lomas de Chapultepec, Mexico, D.F., 11000.

(6) The address for this stockholder is 86 Morris Avenue, Summit, NJ 07901.

(7) Includes 816,553 shares of common stock held by Amgen Investments Ltd., an affiliate of Amgen Inc., and 800,000 shares of common stock held by Amgen Inc. The address for Amgen Inc. is One Amgen Center Drive, Mail Stop 28-5-C, Thousand Oaks, CA 91320.

(8) Represents shares held by the Isaac E. Ciechanover and Allison M. Ciechanover Family Trust dated 8/8/08.

(9) Represents shares held by Alexandria Equities, LLC, an affiliate of Alexandria Real Estate Equities, Inc. The address for this stockholder is 385 East Colorado Boulevard, Suite 299, Pasadena, CA 91101.

(10) As of March 31, 2014, Mr. Clark also held RSUs for 150,000 shares of common that would not be expected to settle within 60 days after March 31, 2014.

(11) As of March 31, 2014, Mr. Haqq also held RSUs for 17,246 shares of common that would not be expected to settle within 60 days after March 31, 2014.

(12) As of March 31, 2014, Mr. McGrath also held RSUs for 218,440 shares of common stock that would not be expected to settle within 60 days after December 31, 2013.

(13) As of March 31, 2014, Mr. Soffer also held RSUs for 286,232 shares of common stock that would not be expected to settle within 60 days after March 31, 2014.

(14) As of March 31, 2014, Mr. Fust also held RSUs for 33,333 shares of common that would not be expected to settle within 60 days after March 31, 2014.

(15) Represents shares of common stock held by the Gallagher Revocable Trust. As of March 31, 2014, Dr. Gallagher also held RSUs for 107,544 shares of common stock that would not be expected to settle within 60 days after March 31, 2014.

(16) As of March 31, 2014, our directors and executive officers also held RSUs for 935,676 shares of common stock that would not be expected to settle within 60 days after March 31, 2014.

DESCRIPTION OF CAPITAL STOCK

General

The following description of our capital stock summarizes the most important terms of our capital stock as they are expected to be in effect upon the closing of this offering. The descriptions of our capital stock and certain provisions of our amended and restated certificate of incorporation and amended and restated bylaws are summaries and are qualified by reference to the amended and restated certificate of incorporation and the amended and restated bylaws that will be in effect upon the closing of this offering. Copies of these documents will be filed with the SEC as exhibits to our registration statement, of which this prospectus forms a part.

Our amended and restated certificate of incorporation provides for common stock and will undesignated preferred stock, the rights, preferences and privileges of which may be designated from time to time by our board of directors.

Upon the closing of this offering, our authorized capital stock will consist of 520,000,000 shares, all with a par value of $0.0001 per share, of which 500,000,000 shares will be designated as common stock and 20,000,000 shares will be designated as preferred stock.

As of March 31, 2014, we had outstanding 18,724,086 shares of common stock, which assumes the conversion of all 15,988,087 shares of preferred stock outstanding as of March 31, 2014 into the same number of shares of common stock immediately prior to the closing of this offering. Our outstanding capital stock was held by approximately 16 stockholders of record as of March 31, 2014. As of March 31, 2014, we also had outstanding RSUs for 1,151,770 shares of common stock held by employees, directors and consultants pursuant to our 2012 Plans.

Common Stock

The holders of our common stock are entitled to one vote per share on all matters submitted to a vote of our stockholders. Subject to preferences that may be applicable to any preferred stock outstanding at the time, the holders of outstanding shares of common stock are entitled to receive ratably any dividends declared by our board of directors out of assets legally available therefor. In the event that we liquidate, dissolve or wind up, holders of our common stock are entitled to share ratably in all assets remaining after payment of liabilities and the liquidation preference of any then outstanding shares of preferred stock. Holders of common stock have no preemptive or conversion rights or other subscription rights. There are no redemption or sinking fund provisions applicable to the common stock. All outstanding shares of common stock are, and all shares of common stock to be outstanding upon completion of this offering will be, fully paid and nonassessable.

Preferred Stock

As of March 31, 2014, there were 15,988,087 shares of our preferred stock outstanding, which will convert into 15,988,087 shares of our common stock immediately prior to the closing of this offering.

Upon the closing of this offering, our board of directors may, without further action by our stockholders, fix the rights, preferences, privileges and restrictions of up to an aggregate of shares of preferred stock in one or more series and authorize their issuance, subject to the approval rights of the common stock described above. These rights, preferences and privileges could include dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences,

sinking fund terms and the number of shares constituting any series or the designation of such series, any or all of which may be greater than the rights of our common stock or common stock. The issuance of our preferred stock could adversely affect the voting power of holders of our common stock or common stock and the likelihood that such holders will receive dividend payments and payments upon liquidation. In addition, the issuance of preferred stock could have the effect of delaying, deferring or preventing a change of control or other corporate action. Upon the closing of this offering, no shares of preferred stock will be outstanding, and we have no present plan to issue any shares of preferred stock.

Registration Rights

We are party to an investors' rights agreement that provides that holders of our preferred stock and certain holders of our common stock, including certain holders of 5% of our capital stock and entities affiliated with certain of our directors, have certain registration rights, as set forth below. The registration of shares of our common stock pursuant to the exercise of registration rights described below would enable the holders to sell these shares without restriction under the Securities Act when the applicable registration statement is declared effective. We will pay the registration expenses, other than the underwriting discounts and commissions, of the shares registered pursuant to the demand, piggyback and Form S-3 registrations described below.

Generally, in an underwritten offering, the managing underwriter, if any, has the right, subject to specified conditions, to limit the number of shares such holders may include. The demand, piggyback and Form S-3 registration rights described below will expire upon the earlier of five years following the completion of this offering, or when all investors, considered with their affiliates, can sell all of their shares in a 90-day period under Rule 144.

Demand Registration Rights

The holders of an aggregate of 18,374,087 shares of common stock outstanding as of March 31, 2014, including 15,988,087 shares issuable upon conversion of outstanding preferred stock, giving effect to the company conversion as if it occurred on such date, will be entitled to certain demand registration rights. At any time beginning after the earlier of the fifth anniversary of the date of the agreement or six months following the date of this prospectus, the holders of at least 35% of these shares may, on not more than two occasions, request that we register all or a portion of their shares, subject to certain specified exceptions. Such request for registration must cover such number of shares such that the anticipated aggregate offering price would equal or exceed $30.0 million.

Piggyback Registration Rights

In connection with this offering, the holders of an aggregate of 18,374,087 shares of common stock outstanding as of March 31, 2014, including 15,988,087 shares issuable upon conversion of outstanding preferred stock, giving effect to the company conversion as if it occurred on such date, were entitled to, and the necessary percentage of holders waived, their rights to notice of this offering and to include their shares of registrable securities in this offering. In the event that we propose to register any of our securities under the Securities Act in another offering, either for our own account or for the account of other security holders, the holders of these shares will be entitled to certain "piggyback" registration rights allowing them to include their shares in such registration, subject to certain marketing and other limitations. As a result, whenever we propose to file a registration statement under the Securities Act, including a registration statement on Form S-3 as discussed below, other than with respect to a demand registration or a registration statement on Forms S-4 or S-8 or related to stock issued upon conversion of debt securities, the holders of these shares are entitled to

notice of the registration and have the right, subject to limitations that the underwriters may impose on the number of shares included in the registration, to include their shares in the registration.

Form S-3 Registration Rights

The holders of an aggregate of 18,374,087 shares of common stock outstanding as of March 31, 2014, including 15,988,087 shares issuable upon conversion of outstanding preferred stock, giving effect to the company conversion as if it occurred on such date, will be entitled to certain Form S-3 registration rights. Any holder or holder of at least 25% of these shares can make a request that we register their shares on Form S-3 if we are qualified to file a registration statement on Form S-3, subject to certain specified exceptions. Such request for registration on Form S-3 must cover securities the aggregate offering price of which, before payment of the underwriting discounts and commissions, equals or exceeds $5.0 million. We will not be required to effect more than two registrations on Form S-3 within any 12-month period.

Anti-Takeover Provisions

Certificate of Incorporation and Bylaws to be in Effect upon the Closing of this Offering

Because our stockholders do not have cumulative voting rights, our stockholders holding a majority of the outstanding shares of common stock outstanding will be able to elect all of our directors. Our amended and restated certificate of incorporation and amended and restated bylaws to be effective upon the closing of this offering will provide that all stockholder actions must be effected at a duly called meeting of stockholders and not by written consent. A special meeting of stockholders may be called by holders of a majority of our common stock and common stock, voting together as a single class, or by the majority of our whole board of directors, or our chief executive officer.

As described above in “Management—Board Composition,” in accordance with our amended and restated certificate of incorporation to be filed in connection with this offering, immediately after this offering, our board of directors will be divided into three classes with staggered three-year terms.

The foregoing provisions will make it more difficult for our existing stockholders to replace our board of directors as well as for another party to obtain control of us by replacing our board of directors. Since our board of directors has the power to retain and discharge our officers, these provisions could also make it more difficult for existing stockholders or another party to effect a change in management. In addition, the authorization of undesignated preferred stock makes it possible for our board of directors to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to change our control.

These provisions are intended to enhance the likelihood of continued stability in the composition of our board of directors and its policies and to discourage certain types of transactions that may involve an actual or threatened acquisition of us. These provisions are also designed to reduce our vulnerability to an unsolicited acquisition proposal and to discourage certain tactics that may be used in proxy fights. However, such provisions could have the effect of discouraging others from making tender offers for our shares and may have the effect of deterring hostile takeovers or delaying changes in our control or management. As a consequence, these provisions also may inhibit fluctuations in the market price of our stock that could result from actual or rumored takeover attempts.

Section 203 of the Delaware General Corporation Law

We are subject to Section 203 of the Delaware General Corporation Law, which prohibits a Delaware corporation from engaging in any business combination with any interested stockholder for a

period of three years after the date that such stockholder became an interested stockholder, with the following exceptions:

- before such date, the board of directors of the corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;
- upon closing of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction began, excluding for purposes of determining the voting stock outstanding (but not the outstanding voting stock owned by the interested stockholder) those shares owned by (i) persons who are directors and also officers and (ii) employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- on or after such date, the business combination is approved by the board of directors and authorized at an annual or special meeting of the stockholders, and not by written consent, by the affirmative vote of at least 66 2/3% of the outstanding voting stock that is not owned by the interested stockholder.

In general, Section 203 defines business combination to include the following:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, transfer, pledge or other disposition of 10% or more of the assets of the corporation involving the interested stockholder;
- subject to certain exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;
- any transaction involving the corporation that has the effect of increasing the proportionate share of the stock or any class or series of the corporation beneficially owned by the interested stockholder; or
- the receipt by the interested stockholder of the benefit of any loss, advances, guarantees, pledges or other financial benefits by or through the corporation.

In general, Section 203 defines an “interested stockholder” as an entity or person who, together with the person’s affiliates and associates, beneficially owns, or within three years prior to the time of determination of interested stockholder status did own, 15% or more of the outstanding voting stock of the corporation.

Choice of Forum

Our amended and restated certificate of incorporation will provide that the Court of Chancery of the State of Delaware will be the exclusive forum for any derivative action or proceeding brought on our behalf; any action asserting a breach of fiduciary duty; any action asserting a claim against us arising pursuant to the Delaware General Corporation Law, our amended and restated certificate of incorporation or our bylaws; or any action asserting a claim against us that is governed by the internal affairs doctrine.

Limitations of Liability and Indemnification

See “Executive Compensation—Limitation on Liability and Indemnification Matters.”

Listing

We intend to apply to have our common stock approved for listing on The Nasdaq Global Market under the symbol “ATRA.”

Transfer Agent and Registrar

Upon the closing of this offering, the transfer agent and registrar for our common stock will be .

SHARES ELIGIBLE FOR FUTURE SALE

Prior to this offering, there has been no public market for our capital stock. Future sales of our common stock in the public market, or the availability of such shares for sale in the public market, could adversely affect market prices prevailing from time to time. As described below, only a limited number of shares will be available for sale shortly after this offering due to contractual and legal restrictions on resale. Nevertheless, sales of our common stock in the public market after such restrictions lapse, or the perception that those sales may occur, could adversely affect the prevailing market price at such time and our ability to raise equity capital in the future.

Based on the number of shares outstanding as of March 31, 2014, upon the closing of this offering, shares of common stock will be outstanding, assuming no exercise of the underwriters' option to purchase additional shares of common stock, no exercise of outstanding options and no issuance of shares upon settlement of RSUs. Of the outstanding shares, all of the shares sold in this offering will be freely tradable, except that any shares held by our affiliates, as that term is defined in Rule 144 under the Securities Act, may only be sold in compliance with the limitations described below.

The remaining shares of our common stock outstanding after this offering are restricted securities as such term is defined in Rule 144 under the Securities Act and are subject to lock-up agreements with us as described below. Following the expiration of the lock-up period, restricted securities may be sold in the public market only if registered or if they qualify for an exemption from registration under Rule 144 or 701 promulgated under the Securities Act, described in greater detail below.

Rule 144

In general, a person who has beneficially owned restricted shares of our common stock for at least six months would be entitled to sell their securities provided that (i) such person is not deemed to have been one of our affiliates at the time of, or at any time during the 90 days preceding, a sale and (ii) we are subject to the Exchange Act periodic reporting requirements for at least 90 days before the sale. Persons who have beneficially owned restricted shares of our common stock for at least six months but who are our affiliates at the time of, or any time during the 90 days preceding, a sale, would be subject to additional restrictions, by which such person would be entitled to sell within any three-month period only a number of securities that does not exceed the greater of either of the following:

- 1% of the number of shares of our common stock outstanding after this offering, which will equal shares assuming no exercise of the underwriters' option to purchase additional shares of common stock; or
- the average weekly trading volume of our common stock on the during the four calendar weeks preceding the filing of a notice on Form 144 with respect to the sale;
- provided, in each case, that we are subject to the Exchange Act periodic reporting requirements for at least 90 days before the sale. Such sales both by affiliates and by non-affiliates must also comply with the manner of sale, current public information and notice provisions of Rule 144.

Rule 701

Rule 701 under the Securities Act, as in effect on the date of this prospectus, permits re-sales of shares in reliance upon Rule 144 but without compliance with certain restrictions of Rule 144, including the holding period requirement. Most of our employees, executive officers, directors or consultants who purchased shares under a written compensatory plan or contract may be entitled to rely on the resale provisions of Rule 701, but all holders of Rule 701 shares are required to wait until 90 days after the

date of this prospectus before selling their shares. However, substantially all Rule 701 shares are subject to lock-up agreements as described below and under “Underwriting” and will become eligible for sale at the expiration of those agreements.

Lock-Up Agreements

We, our directors and executive officers, and substantially all of our stockholders and RSU holders have agreed with the underwriters that for a period of 180 days following the date of this prospectus, subject to certain exceptions, we and they will not, directly or indirectly, offer, sell, contract to sell, pledge, grant any option to purchase, make any short sale or otherwise dispose of or hedge any of our shares of common stock, any options or warrants to purchase shares of our common stock, or any securities convertible into, or exchangeable for or that represent the right to receive shares of our common stock. Goldman, Sachs & Co. and Citigroup Global Capital Markets Inc. may, in their sole discretion, at any time, release all or any portion of the shares from the restrictions in such agreement.

Employees can only sell vested shares. Employees who do not hold vested shares, including shares subject to options, upon expiration of these selling restrictions will not be able to sell shares until they vest.

Registration Rights

On the date beginning 180 days after the date of this prospectus, the holders of approximately 18,374,087 shares of our common stock, or their transferees, will be entitled to certain rights with respect to the registration of those shares under the Securities Act. For a description of these registration rights, see “Description of Capital Stock—Registration Rights.” If these shares are registered, they will be freely tradable without restriction under the Securities Act.

Equity Incentive Plans

As soon as practicable after the closing of this offering, we intend to file a Form S-8 registration statement under the Securities Act to register shares of our common stock issued or reserved for issuance under our equity compensation plans and agreements. This registration statement will become effective immediately upon filing, and shares covered by this registration statement will thereupon be eligible for sale in the public markets, subject to vesting restrictions, the lock-up agreements described above and Rule 144 limitations applicable to affiliates. For a more complete discussion of our equity compensation plans, see “Executive Compensation—Employee Benefit Plans.”

MATERIAL US FEDERAL INCOME AND ESTATE TAX CONSEQUENCES TO NON-US HOLDERS OF OUR COMMON STOCK

The following is a summary of the material US federal income and estate tax consequences to non-US holders (as defined below) of the acquisition, ownership and disposition of our common stock issued pursuant to this offering. This discussion is not a complete analysis of all potential US federal income tax consequences relating thereto, does not address the potential application of the Medicare contribution tax and does not address any gift tax consequences or any tax consequences arising under any state, local or foreign tax laws, or any other US federal tax laws. This discussion is based on the Internal Revenue Code of 1986, as amended, or the Code, Treasury Regulations promulgated thereunder, judicial decisions and published rulings and administrative pronouncements of the Internal Revenue Service, or IRS, all as in effect as of the date of this prospectus. These authorities may change, possibly retroactively, resulting in US federal income tax consequences different from those discussed below.

This discussion is limited to non-US holders who purchase our common stock issued pursuant to this offering and who hold our common stock as a "capital asset" within the meaning of Section 1221 of the Code (generally, property held for investment). This discussion does not address all of the US federal income tax consequences that may be relevant to a particular holder in light of such holder's particular circumstances. This discussion also does not consider any specific facts or circumstances that may be relevant to holders subject to special rules under the US federal income tax laws, including, without limitation, certain former citizens or long-term residents of the United States, partnerships or other pass-through entities, "controlled foreign corporations," "passive foreign investment companies," corporations that accumulate earnings to avoid US federal income tax, banks, financial institutions, investment funds, insurance companies, brokers, dealers or traders in securities, tax-exempt organizations, tax-qualified retirement plans, persons subject to the alternative minimum tax, persons that own, or have owned, actually or constructively, more than 5% of our common stock and persons holding our common stock as part of a hedging or conversion transaction or straddle, or a constructive sale, or other risk reduction strategy.

If an entity or arrangement that is classified as a partnership for US federal income tax purposes holds our common stock, the US federal income tax treatment of a partner will generally depend on the status of the partner and the activities of the partnership. Partnerships holding our common stock and the partners in such partnerships are urged to consult their tax advisors as to particular US federal income tax consequences to them of holding and disposing of our common stock.

PROSPECTIVE INVESTORS SHOULD CONSULT THEIR TAX ADVISORS REGARDING THE PARTICULAR US FEDERAL INCOME TAX CONSEQUENCES TO THEM OF ACQUIRING, OWNING AND DISPOSING OF OUR COMMON STOCK, AS WELL AS ANY TAX CONSEQUENCES ARISING UNDER ANY STATE, LOCAL OR FOREIGN TAX LAWS AND ANY OTHER US FEDERAL TAX LAWS.

Definition of Non-US Holder

For purposes of this discussion, a non-US holder is any beneficial owner of our common stock that is not a "US person" or a partnership (including any entity or arrangement treated as a partnership) for US federal income tax purposes. A US person is any of the following:

- an individual citizen or resident of the United States;
- a corporation (or other entity treated as a corporation for US federal income tax purposes) created or organized under the laws of the United States, any state thereof or the District of Columbia;

- an estate, the income of which is subject to US federal income tax regardless of its source; or
- a trust (1) whose administration is subject to the primary supervision of a US court and which has one or more US persons who have the authority to control all substantial decisions of the trust, or (2) that has a valid election in effect under applicable Treasury Regulations to be treated as a US person.

Distributions on our Common Stock

If we make cash or other property distributions on our common stock, such distributions will constitute dividends for US federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under US federal income tax principles. Amounts not treated as dividends for US federal income tax purposes will constitute a return of capital and will first be applied against and reduce a holder's tax basis in our common stock, but not below zero. Any excess will be treated as gain realized on the sale or other disposition of our common stock and will be treated as described under the section of this prospectus titled "—Gain on Disposition of our Common Stock" below.

Dividends (out of earnings and profits) paid to a non-US holder of our common stock generally will be subject to US federal withholding tax at a rate of 30% of the gross amount of the dividends, or such lower rate specified by an applicable income tax treaty. To receive the benefit of a reduced treaty rate, a non-US holder must furnish to us or our paying agent a valid IRS Form W-8BEN (or applicable successor form) including a US taxpayer identification number and certifying such holder's qualification for the reduced rate. This certification must be provided to us or our paying agent prior to the payment of dividends and must be updated periodically. If the non-US holder holds the stock through a financial institution or other agent acting on the non-US holder's behalf, the non-US holder will be required to provide appropriate documentation to the agent, which then will be required to provide certification to us or our paying agent, either directly or through other intermediaries.

Non-US holders that do not timely provide the required certification, but that qualify for a reduced treaty rate, may obtain a refund of any excess amounts withheld by timely filing an appropriate claim for refund with the IRS.

If a non-US holder holds our common stock in connection with the conduct of a trade or business in the United States, and dividends paid on our common stock are effectively connected with such holder's US trade or business (and are attributable to such holder's permanent establishment in the United States if required by an applicable tax treaty), the non-US holder will be exempt from US federal withholding tax. To claim the exemption, the non-US holder must generally furnish a properly executed IRS Form W-8ECI (or applicable successor form).

Any dividends paid on our common stock that are effectively connected with a non-US holder's US trade or business (and if required by an applicable income tax treaty, are attributable to a permanent establishment maintained by the non-US holder in the United States) generally will be subject to US federal income tax on a net income basis at the regular graduated US federal income tax rates in the same manner as if such holder were a resident of the United States. A non-US holder that is a foreign corporation also may be subject to an additional branch profits tax equal to 30% (or such lower rate specified by an applicable income tax treaty) of its effectively connected earnings and profits for the taxable year, as adjusted for certain items. Non-US holders should consult their tax advisors regarding any applicable income tax treaties that may provide for different rules.

Gain on Disposition of our Common Stock

Subject to the discussion below regarding backup withholding and FATCA, a non-US holder generally will not be subject to US federal income tax on any gain realized upon the sale or other disposition of our common stock, unless:

- the gain is effectively connected with the non-US holder's conduct of a trade or business in the United States, and if required by an applicable income tax treaty, is attributable to a permanent establishment maintained by the non-US holder in the United States;
- the non-US holder is a nonresident alien individual present in the United States for 183 days or more during the taxable year of the disposition, and certain other requirements are met; or
- our common stock constitutes a "United States real property interest" by reason of our status as a United States real property holding corporation, or USRPHC, for US federal income tax purposes at any time within the shorter of the five-year period preceding the disposition or the non-US holder's holding period for our common stock, and our common stock is not regularly traded on an established securities market during the calendar year in which the sale or other disposition occurs.

The determination of whether we are a USRPHC depends on the fair market value of our US real property interests relative to the fair market value of our other trade or business assets and our foreign real property interests. We believe we are not currently and do not anticipate becoming a USRPHC for US federal income tax purposes.

Gain described in the first bullet point above generally will be subject to US federal income tax on a net income basis at the regular graduated US federal income tax rates in the same manner as if such holder were a resident of the United States. A non-US holder that is a foreign corporation also may be subject to an additional branch profits tax equal to 30% (or such lower rate specified by an applicable income tax treaty) of its effectively connected earnings and profits for the taxable year, as adjusted for certain items. Non-US holders should consult their tax advisors regarding any applicable income tax treaties that may provide for different rules.

Gain described in the second bullet point above will be subject to US federal income tax at a flat 30% rate (or such lower rate specified by an applicable income tax treaty), but may be offset by certain US-source capital losses (even though the individual is not considered a resident of the United States), provided that the non-US holder has timely filed US federal income tax returns with respect to such losses.

Information Reporting and Backup Withholding

We must report annually to the IRS and to each non-US holder the amount of dividends on our common stock paid to such holder and the amount of any tax withheld with respect to those dividends. These information reporting requirements apply even if no withholding was required because the dividends were effectively connected with the holder's conduct of a US trade or business, or withholding was reduced or eliminated by an applicable income tax treaty. This information also may be made available under a specific treaty or agreement with the tax authorities in the country in which the non-US holder resides or is established. Backup withholding, currently at a 28% rate, generally will not apply to payments to a non-US holder of dividends on or the gross proceeds of a disposition of our common stock provided the non-US holder furnishes the required certification as to its non-US status, such as by providing a valid IRS Form W-8BEN or IRS Form W-8ECI, or certain other requirements are met. Notwithstanding the foregoing, backup withholding may apply if the payor has actual knowledge, or reason to know, that the holder is a US person who is not an exempt recipient.

Backup withholding is not an additional tax. If any amount is withheld under the backup withholding rules, the non-US holder should consult with a US tax advisor regarding the possibility of and procedure for obtaining a refund or a credit against the non-US holder's US federal income tax liability, if any.

Legislation Affecting Taxation of our Common Stock held by or through Foreign Entities

Sections 1471 through 1474 of the Code (commonly referred to as FATCA) will impose a US federal withholding tax of 30% on certain payments made to a "foreign financial institution" (as specially defined under these rules) unless such institution enters into an agreement with the US government to withhold on certain payments and to collect and provide to the US tax authorities substantial information regarding US account holders of such institution (which includes certain equity and debt holders of such institution, as well as certain account holders that are foreign entities with US owners) or an exemption applies. FATCA also generally will impose a US federal withholding tax of 30% on certain payments made to a non-financial foreign entity unless such entity provides the withholding agent a certification identifying the direct and indirect US owners of the entity or an exemption applies. An intergovernmental agreement between the United States and an applicable foreign country may modify these requirements. Under certain circumstances, a non-US holder might be eligible for refunds or credits of such taxes. Under certain transition rules, these withholding taxes will be imposed on dividends paid on our common stock after June 30, 2014, and on gross proceeds from sales or other dispositions of our common stock after December 31, 2016.

Prospective investors are encouraged to consult with their own tax advisors regarding the possible implications of this legislation on their investment in our common stock.

Estate Tax

Individual non-US holders and entities whose property is potentially includible in such an individual's gross estate for US federal estate tax purposes (for example, a trust funded by such an individual and with respect to which the individual has retained certain interests or powers), should note that, absent an applicable treaty benefit, our common stock generally will be treated as US situs property subject to US federal estate tax.

UNDERWRITING

We and the underwriters named below have entered into an underwriting agreement with respect to the shares being offered. Subject to certain conditions, each underwriter has severally agreed to purchase the number of shares indicated in the following table. Goldman, Sachs & Co. and Citigroup Global Markets Inc. are the representatives of the underwriters.

Underwriters	Number of Shares
Goldman, Sachs & Co.	
Citigroup Global Markets Inc.	
Jefferies LLC	
Total	

The underwriters are committed to take and pay for all of the shares being offered, if any are taken, other than the shares covered by the option described below unless and until this option is exercised.

The underwriters have an option to buy up to an additional shares to cover sales by the underwriters of a greater number of shares than the total number set forth in the table above. They may exercise that option for 30 days. If any shares are purchased pursuant to this option, the underwriters will severally purchase shares in approximately the same proportion as set forth in the table above.

The following table shows the per share and total underwriting discounts and commissions to be paid to the underwriters. Such amounts are shown assuming both no exercise and full exercise of the underwriters' option to purchase additional shares.

Paid by Us	No Exercise	Full Exercise
Per Share	$	$
Total	$	$

Shares sold by the underwriters to the public will initially be offered at the initial public offering price set forth on the cover of this prospectus. Any shares sold by the underwriters to securities dealers may be sold at a discount of up to $ per share from the initial public offering price. After the initial offering of the shares, the representatives may change the offering price and the other selling terms. The offering of the shares by the underwriters is subject to receipt and acceptance and subject to the underwriters' right to reject any order in whole or in part.

We and our officers, directors, and holders of substantially all of our capital stock have agreed with the underwriters, subject to certain exceptions, not to dispose of or hedge any of their common stock or securities convertible into or exchangeable for shares of common stock during the period from the date of this prospectus continuing through the date 180 days after the date of this prospectus, except with the prior written consent of the representatives. See "Shares Eligible for Future Sale" for a discussion of certain transfer restrictions.

Prior to the offering, there has been no public market for the shares. The initial public offering price has been negotiated among us and the representatives. Among the factors considered in determining the initial public offering price of the shares, in addition to prevailing market conditions, were our historical performance, estimates of our business potential and earnings prospects, an assessment of our management and the consideration of the above factors in relation to market valuation of companies in related businesses.

We intend to apply for the listing of our common stock on The Nasdaq Global Market under the symbol “ATRA”.

In connection with the offering, the underwriters may purchase and sell shares of our common stock in the open market. These transactions may include short sales, stabilizing transactions and purchases to cover positions created by short sales. Short sales involve the sale by the underwriters of a greater number of shares than they are required to purchase in the offering, and a short position represents the amount of such sales that have not been covered by subsequent purchases. A “covered short position” is a short position that is not greater than the amount of additional shares for which the underwriters’ option described above may be exercised. The underwriters may cover any covered short position by either exercising their option to purchase additional shares or purchasing shares in the open market. In determining the source of shares to cover the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase additional shares pursuant to the option described above. “Naked” short sales are any short sales that create a short position greater than the amount of additional shares for which the option described above may be exercised. The underwriters must cover any such naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of our common stock in the open market after pricing that could adversely affect investors who purchase in the offering. Stabilizing transactions consist of various bids for or purchases of our common stock made by the underwriters in the open market prior to the completion of the offering.

The underwriters may also impose a penalty bid. This occurs when a particular underwriter repays to the underwriters a portion of the underwriting discount received by it because the representatives have repurchased shares sold by or for the account of such underwriter in stabilizing or short covering transactions.

Purchases to cover a short position and stabilizing transactions, as well as other purchases by the underwriters for their own accounts, may have the effect of preventing or retarding a decline in the market price of our stock, and together with the imposition of the penalty bid, may stabilize, maintain or otherwise affect the market price of our common stock. As a result, the price of the common stock may be higher than the price that otherwise might exist in the open market. The underwriters are not required to engage in these activities and may end any of these activities at any time. These transactions may be effected on The Nasdaq Global Market, in the over-the-counter market or otherwise.

The underwriters do not expect sales to discretionary accounts to exceed five percent of the total number of shares offered.

We estimate that our share of the total expenses of the offering, excluding underwriting discounts and commissions, will be approximately $.

We have agreed to indemnify the several underwriters against certain liabilities, including liabilities under the Securities Act.

The underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include sales and trading, commercial and investment banking, advisory, investment management, investment research, principal investment, hedging, market making, brokerage and other financial and non-financial activities and services. Certain of the underwriters and their respective affiliates have provided, and may in the future provide, a variety of these services to us and to persons and entities with relationships with us, for which they received or will receive customary fees and expenses.

In the ordinary course of their various business activities, the underwriters and their respective affiliates, officers, directors and employees may purchase, sell or hold a broad array of investments and actively trade securities, derivatives, loans, commodities, currencies, credit default swaps and other financial instruments for their own account and for the accounts of their customers, and such investment and trading activities may involve or relate to our assets, securities and/or instruments (directly, as collateral securing other obligations or otherwise) and/or persons and entities with relationships with us. The underwriters and their respective affiliates may also communicate independent investment recommendations, market color or trading ideas and/or publish or express independent research views in respect of such assets, securities or instruments and may at any time hold, or recommend to clients that they should acquire, long and/or short positions in such assets, securities and instruments.

European Economic Area

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a Relevant Member State), each underwriter has represented and agreed that with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State (the Relevant Implementation Date) it has not made and will not make an offer of shares to the public in that Relevant Member State prior to the publication of a prospectus in relation to the shares which has been approved by the competent authority in that Relevant Member State or, where appropriate, approved in another Relevant Member State and notified to the competent authority in that Relevant Member State, all in accordance with the Prospectus Directive, except that it may, with effect from and including the Relevant Implementation Date, make an offer of shares to the public in that Relevant Member State at any time:

(a) to legal entities which are authorised or regulated to operate in the financial markets or, if not so authorised or regulated, whose corporate purpose is solely to invest in securities;

(b) to any legal entity which has two or more of (1) an average of at least 250 employees during the last financial year; (2) a total balance sheet of more than €43,000,000 and (3) an annual net turnover of more than€50,000,000, as shown in its last annual or consolidated accounts;

(c) to fewer than 100 natural or legal persons (other than qualified investors as defined in the Prospectus Directive) subject to obtaining the prior consent of the representatives for any such offer; or

(d) in any other circumstances which do not require the publication by the Issuer of a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an “offer of shares to the public” in relation to any shares in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the shares to be offered so as to enable an investor to decide to purchase or subscribe for the shares, as the same may be varied in that Relevant Member State by any measure implementing the Prospectus Directive in that Relevant Member State and the expression Prospectus Directive means Directive 2003/71/EC and includes any relevant implementing measure in each Relevant Member State.

United Kingdom

Each underwriter has represented and agreed that:

(a) it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity

(within the meaning of Section 21 of the FSMA) received by it in connection with the issue or sale of the shares in circumstances in which Section 21(1) of the FSMA does not apply to the Issuer; and

(b) it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the shares in, from or otherwise involving the United Kingdom.

France

Neither this prospectus nor any other offering material relating to the shares described in this prospectus has been submitted to the clearance procedures of the *Autorité des Marchés Financiers* or of the competent authority of another member state of the European Economic Area and notified to the *Autorité des Marchés Financiers*. The shares have not been offered or sold and will not be offered or sold, directly or indirectly, to the public in France. Neither this prospectus nor any other offering material relating to the shares has been or will be:

- released, issued, distributed or caused to be released, issued or distributed to the public in France; or
- used in connection with any offer for subscription or sale of the shares to the public in France.

Such offers, sales and distributions will be made in France only:

- to qualified investors (*investisseurs qualifiés*) and/or to a restricted circle of investors (*cercle restreint d'investisseurs*), in each case investing for their own account, all as defined in, and in accordance with articles L.411-2, D.411-1, D.411-2, D.734-1, D.744-1, D.754-1 and D.764-1 of the French *Code monétaire et financier*;
- to investment services providers authorized to engage in portfolio management on behalf of third parties; or
- in a transaction that, in accordance with article L.411-2-II-1°-or-2°-or 3° of the French *Code monétaire et financier* and article 211-2 of the General Regulations (*Règlement Général*) of the *Autorité des Marchés Financiers*, does not constitute a public offer (*appel public à l'épargne*).

The shares may be resold directly or indirectly, only in compliance with articles L.411-1, L.411-2, L.412-1 and L.621-8 through L.621-8-3 of the French *Code monétaire et financier*.

Australia

No prospectus or other disclosure document (as defined in the Corporations Act 2001 (Cth) of Australia ("Corporations Act")) in relation to the common stock has been or will be lodged with the Australian Securities & Investments Commission ("ASIC"). This document has not been lodged with ASIC and is only directed to certain categories of exempt persons. Accordingly, if you receive this document in Australia:

(a) you confirm and warrant that you are either:

(i) a "sophisticated investor" under section 708(8)(a) or (b) of the Corporations Act;

(ii) a "sophisticated investor" under section 708(8)(c) or (d) of the Corporations Act and that you have provided an accountant's certificate to us which complies with the requirements of section 708(8)(c)(i) or (ii) of the Corporations Act and related regulations before the offer has been made;

(iii) a person associated with the company under section 708(12) of the Corporations Act; or

(iv) a "professional investor" within the meaning of section 708(11)(a) or (b) of the Corporations Act, and to the extent that you are unable to confirm or warrant that you are an exempt sophisticated investor, associated person or professional investor under the Corporations Act any offer made to you under this document is void and incapable of acceptance; and

(b) you warrant and agree that you will not offer any of the common stock for resale in Australia within 12 months of that common stock being issued unless any such resale offer is exempt from the requirement to issue a disclosure document under section 708 of the Corporations Act.

Hong Kong

The shares may not be offered or sold by means of any document other than (i) in circumstances which do not constitute an offer to the public within the meaning of the Companies Ordinance (Cap.32, Laws of Hong Kong), (ii) to "professional investors" within the meaning of the Securities and Futures Ordinance (Cap.571, Laws of Hong Kong) and any rules made thereunder, or (iii) in other circumstances which do not result in the document being a "prospectus" within the meaning of the Companies Ordinance (Cap.32, Laws of Hong Kong), and no advertisement, invitation or document relating to the shares may be issued or may be in the possession of any person for the purpose of issue (in each case whether in Hong Kong or elsewhere), which is directed at, or the contents of which are likely to be accessed or read by, the public in Hong Kong (except if permitted to do so under the laws of Hong Kong) other than with respect to shares which are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" within the meaning of the Securities and Futures Ordinance (Cap. 571, Laws of Hong Kong) and any rules made thereunder.

Singapore

This prospectus has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the shares may not be circulated or distributed, nor may the shares be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor under Section 274 of the Securities and Futures Act, Chapter 289 of Singapore (the "SFA"), (ii) to a relevant person, or any person pursuant to Section 275(1A), and in accordance with the conditions, specified in Section 275 of the SFA or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the shares are subscribed or purchased under Section 275 by a relevant person which is: (a) a corporation (which is not an accredited investor) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or (b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary is an accredited investor, shares, debentures and units of shares and debentures of that corporation or the beneficiaries' rights and interest in that trust shall not be transferable for 6 months after that corporation or that trust has acquired the shares under Section 275 except: (1) to an institutional investor under Section 274 of the SFA or to a relevant person, or any person pursuant to Section 275(1A), and in accordance with the conditions, specified in Section 275 of the SFA; (2) where no consideration is given for the transfer; or (3) by operation of law.

Japan

The securities have not been and will not be registered under the Financial Instruments and Exchange Law of Japan (the Financial Instruments and Exchange Law) and each underwriter has agreed that it will not offer or sell any securities, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan (which term as used herein means any person resident in Japan, including any corporation or other entity organized under the laws of Japan), or to others for re-offering or resale, directly or indirectly, in Japan or to a resident of Japan, except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the Financial Instruments and Exchange Law and any other applicable laws, regulations and ministerial guidelines of Japan.

LEGAL MATTERS

Cooley LLP of San Francisco, California, will pass upon the validity of the shares of common stock offered hereby. The underwriters are being represented by Davis Polk & Wardwell LLP of Menlo Park, California, in connection with the offering.

EXPERTS

The combined financial statements as of December 31, 2013, and 2012 and for the year ended December 31, 2013 and for the periods from August 22, 2012 (inception) to December 31, 2012 and from August 22, 2012 (inception) to December 31, 2013 included in this prospectus have been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report appearing herein and elsewhere in the registration statement (which report expresses an unqualified opinion on the combined financial statements and includes an explanatory paragraph referring to the Company (as defined therein) being in the development stage as of December 31, 2013). Such combined financial statements have been so included in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-1 under the Securities Act with respect to this offering of our common stock. This prospectus, which constitutes a part of the registration statement, does not contain all of the information set forth in the registration statement, some items of which are contained in exhibits to the registration statement as permitted by the rules and regulations of the SEC. For further information with respect to us and our common stock, we refer you to the registration statement, including the exhibits and the financial statements and notes filed as a part of the registration statement. Statements contained in this prospectus concerning the contents of any contract or any other document are not necessarily complete. If a contract or document has been filed as an exhibit to the registration statement, please see the copy of the contract or document that has been filed. Each statement in this prospectus relating to a contract or document filed as an exhibit is qualified in all respects by the filed exhibit. The exhibits to the registration statement should be referenced for the complete contents of these contracts and documents. A copy of the registration statement and the exhibits filed therewith may be inspected without charge at the public reference room of the SEC, located at 100 F Street, N.E., Room 1580, Washington, D.C. 20549. You may obtain information on the operation of the public reference rooms by calling the SEC at 1-800-SEC-0330. The SEC also maintains an Internet website that contains reports, proxy statements and other information about issuers, like us, that file electronically with the SEC. The address of that website is www.sec.gov.

As a result of this offering, we will become subject to the information and reporting requirements of the Exchange Act and, in accordance with this law, will file periodic reports, proxy statements and other information with the SEC. These periodic reports, proxy statements and other information will be available for inspection and copying at the SEC's public reference facilities and the website of the SEC referred to above. We also maintain a website at http://www.atarabio.com. After the closing of this offering, you may access our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act with the SEC free of charge at our website as soon as reasonably practicable after such material is electronically filed with, or furnished to, the SEC. The information contained in, or that can be accessed through, our website is not part of this prospectus.

ATARA BIOTHERAPEUTICS, INC.
(A DEVELOPMENT STAGE COMPANY)
INDEX TO COMBINED AND CONSOLIDATED FINANCIAL STATEMENTS

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of Atara Biotherapeutics, Inc.
Brisbane, California

We have audited the accompanying combined balance sheets of Atara Biotherapeutics, Inc., Nina Biotherapeutics, Inc., Pinta Biotherapeutics, Inc. and Santa Maria Biotherapeutics, Inc. (the development stage companies) (collectively, the "Company") as of December 31, 2013 and 2012, and the related combined statements of operations and comprehensive loss, convertible preferred stock and stockholders' deficit, and cash flows for the year ended December 31, 2013, the period from August 22, 2012 (inception) to December 31, 2012, and the period from August 22, 2012 (inception) to December 31, 2013. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. The Company is not required to have, nor were we engaged to perform, an audit of their internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, such financial statements present fairly, in all material respects, the combined financial position of the Company at December 31, 2013 and 2012, and the combined results of its operations and its cash flows for the year ended December 31, 2013, the period from August 22, 2012 (inception) to December 31, 2012, and the period from August 22, 2012 (inception) to December 31, 2013, in conformity with accounting principles generally accepted in the United States of America.

The Company is in the development stage as of December 31, 2013. As discussed in Note 2 to the combined financial statements, successful completion of the Company's development programs and, ultimately, the attainment of profitable operations is dependent upon future events, including obtaining additional financing for the successful development, approval and commercialization of product candidates and the achievement of sufficient revenues to support the Company's cost structure.

/s/ DELOITTE & TOUCHE LLP

San Jose, CA
April 9, 2014

ATARA BIOTHERAPEUTICS, INC.
(A DEVELOPMENT STAGE COMPANY)
Combined and Consolidated Balance Sheets

	December 31, 2012	December 31, 2013	March 31, 2014 (unaudited)
	(In thousands, except share and per share information)		
Assets			
Current assets			
Cash and cash equivalents	$ 4,207	$ 51,615	$ 39,754
Short-term available-for-sale investments	—	—	22,277
Prepaid expenses and other current assets	35	193	260
Total current assets	4,242	51,808	62,291
Property and equipment, net	9	8	8
Other assets	39	12	567
Total assets	$ 4,290	$ 51,828	$ 62,866
Liabilities, convertible preferred stock and stockholders' deficit			
Current liabilities:			
Accounts payable	$ 121	$ 606	$ 1,402
Accrued compensation	51	331	199
Series A-1 convertible preferred shares issuable to Amgen	1,003	—	—
Income tax payable	7	155	63
Other accrued liabilities	120	432	1,124
Total current liabilities	1,302	1,524	2,788
Other long-term liabilities	4	230	210
Total liabilities	1,306	1,754	2,998
Commitments and contingencies (Note 5)			
Series A convertible preferred stock—$0.0001 par value, liquidation preference of $20,088	4,946	19,909	19,909
Series A-1 convertible preferred stock—$0.0001 par value, liquidation preference of $3,000	1,765	2,768	2,768
Series B convertible preferred stock—$0.0001 par value, liquidation preference of $38,500	—	38,414	51,895
Stockholders' deficit			
Common stock—$0.0001 par value, 9,700,000, 15,605,161 and 1,693,687 shares issued and outstanding as of December 31, 2012 and 2013 and March 31, 2014 (unaudited), respectively	1	2	—
Additional paid-in capital	382	2,199	5,538
Notes receivable from stockholder	—	(335)	(299)
Accumulated other comprehensive loss	—	—	(11)
Accumulated deficit	(4,110)	(12,883)	(19,932)
Total stockholders' deficit	(3,727)	(11,017)	(14,704)
Total liabilities, convertible preferred stock and stockholders' deficit	$ 4,290	$ 51,828	$ 62,866

See accompanying notes.

ATARA BIOTHERAPEUTICS, INC.
(A DEVELOPMENT STAGE COMPANY)
Combined and Consolidated Statements of Operations and Comprehensive Loss

	Period from August 22, 2012 (Inception) to December 31, 2012	Year ended December 31, 2013	Period from August 22, 2012 (Inception) to December 31, 2013	Three months ended March 31, 2013	Three months ended March 31, 2014	Period from August 22, 2012 (Inception) to March 31, 2014
				(unaudited)		(unaudited)
	(In thousands, except share and per share information)					
Expenses:						
Research and development	$ 241	$ 4,306	$ 4,547	$ 354	$ 2,981	$ 7,528
Research and development costs paid to Amgen	—	553	553	—	—	553
In-process research and development acquired from Amgen	3,018	—	3,018	—	—	3,018
General and administrative	834	3,756	4,590	932	4,096	8,686
Total expense	4,093	8,615	12,708	1,286	7,077	19,785
Loss from operations	(4,093)	(8,615)	(12,708)	(1,286)	(7,077)	(19,785)
Interest income	—	12	12	2	6	18
Loss before provision for income taxes	(4,093)	(8,603)	(12,696)	(1,284)	(7,071)	(19,767)
Provision (benefit) for income taxes	17	170	187	14	(22)	165
Net loss incurred in the development stage	$ (4,110)	$ (8,773)	$ (12,883)	$ (1,298)	$ (7,049)	$ (19,932)
Other comprehensive loss, net of tax:						
Unrealized losses on investments	—	—	—	—	(11)	(11)
Other comprehensive loss	—	—	—	—	(11)	(11)
Comprehensive loss incurred in the development stage	$ (4,110)	$ (8,773)	$ (12,883)	$ (1,298)	$ (7,060)	$ (19,943)
Net loss per common share:						
Basic and diluted net loss per common share	$ (4.31)	$ (6.99)		$ (1.20)	$ (4.29)	
Weighted-average common shares outstanding used to calculate basic and diluted net loss per common share	953,283	1,255,573		1,079,096	1,642,312	

See accompanying notes.

ATARA BIOTHERAPEUTICS, INC.
(A DEVELOPMENT STAGE COMPANY)
Combined and Consolidated Statements of Convertible Preferred Stock and Stockholders' Deficit
(In thousands)

	Series A Convertible Preferred Stock		Series A-1 Convertible Preferred Stock		Series B Convertible Preferred Stock		Common Stock		Additional Paid-in Capital	Notes Receivable From Stockholder	Accumulated Other Comprehensive Loss	Accumulated Deficit	Total Stockholders' Deficit
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount					
Balance at inception (August 22, 2012)	—	$ —	—	$ —	—	$ —	—	$ —	$ —	$ —	$ —	$ —	$ —
Issuance of common stock for cash	—	—	—	—	—	—	9,400	1	90	—	—	—	91
Issuance of Series A preferred stock for cash, net of offering costs of $54	15,000	4,946	—	—	—	—	—	—	—	—	—	—	—
Issuance of Series A-1 preferred stock for license fee to Amgen	—	—	4,591	1,765	—	—	—	—	—	—	—	—	—
Issuance of common stock upon vesting of stock awards	—	—	—	—	—	—	300	—	—	—	—	—	—
Stock-based compensation expense	—	—	—	—	—	—	—	—	292	—	—	—	292
Net loss incurred in the development stage	—	—	—	—	—	—	—	—	—	—	—	(4,110)	(4,110)
Balance at December 31, 2012	15,000	4,946	4,591	1,765	—	—	9,700	1	382	—	—	(4,110)	(3,727)
Issuance of common stock for cash, net of offering costs of $1	—	—	—	—	—	—	800	—	—	—	—	—	—
Issuance of Series A preferred stock for cash, net of offering costs of $124	45,263	14,963	—	—	—	—	—	—	—	—	—	—	—
Issuance of Series A-1 preferred stock for license fee to Amgen	—	—	2,609	1,003	—	—	—	—	—	—	—	—	—
Issuance of Series B preferred stock for cash, net of offering costs of $86	—	—	—	—	56,587	38,414	—	—	—	—	—	—	—
Notes receivable from stockholder	—	—	—	—	—	—	—	—	—	(331)	—	—	(331)

ATARA BIOTHERAPEUTICS, INC.
(A DEVELOPMENT STAGE COMPANY)
Combined and Consolidated Statements of Convertible Preferred Stock and Stockholders' Deficit
(In thousands)

	Series A Convertible Preferred Stock		Series A-1 Convertible Preferred Stock		Series B Convertible Preferred Stock		Common Stock		Additional Paid-in Capital	Notes Receivable From Stockholder	Accumulated Other Comprehensive Loss	Accumulated Deficit	Total Stockholders' Deficit
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount					
Interest income accrued on notes receivable from stockholder	—	—	—	—	—	—	—	—	—	(4)	—	—	(4)
Issuance of common stock upon vesting of stock awards	—	—	—	—	—	—	5,105	1	104	—	—	—	105
Stock-based compensation expense	—	—	—	—	—	—	—	—	1,713	—	—	—	1,713
Net loss incurred in the development stage	—	—	—	—	—	—	—	—	—	—	—	(8,773)	(8,773)
Balance at December 31, 2013	60,263	19,909	7,200	2,768	56,587	38,414	15,605	2	2,199	(335)	—	(12,883)	(11,017)
Issuance of Series B preferred stock, net of offering costs of $19 (unaudited)	—	—	—	—	19,842	13,481	—	—	—	—	—	—	—
Repayment of notes receivable from stockholder (unaudited)	—	—	—	—	—	—	—	—	—	37	—	—	37
Interest income accrued on notes receivable from stockholder (unaudited)	—	—	—	—	—	—	—	—	—	(1)	—	—	(1)
Issuance of common stock upon vesting of stock awards (unaudited)	—	—	—	—	—	—	838	—	20	—	—	—	20
Recapitalization (Note 2) (unaudited)	(53,567)	—	(6,400)	—	(67,937)	—	(14,749)	(2)	2	—	—	—	—
Stock-based compensation expense (unaudited)	—	—	—	—	—	—	—	—	3,317	—	—	—	3,317
Unrealized losses on available-for-sale investments (unaudited)	—	—	—	—	—	—	—	—	—	—	(11)	—	(11)
Net loss incurred in the development stage (unaudited)	—	—	—	—	—	—	—	—	—	—	—	(7,049)	(7,049)
Balance at March 31, 2014 (unaudited)	6,696	$19,909	800	$ 2,768	8,492	$51,895	1,694	$ —	$ 5,538	$ (299)	$ (11)	$ (19,932)	$ (14,704)

See accompanying notes.

ATARA BIOTHERAPEUTICS, INC.
(A DEVELOPMENT STAGE COMPANY)
Combined and Consolidated Statements of Cash Flows

	Period from August 22, 2012 (Inception) to December 31, 2012	Year ended December 31, 2013	Period from August 22, 2012 (Inception) to December 31, 2013	Three months ended March 31, 2013	Three months ended March 31, 2014	Period from August 22, 2012 (Inception) to March 31, 2014
			(In thousands)	(unaudited)		(unaudited)
Operating activities						
Net loss incurred in the development stage	$ (4,110)	$ (8,773)	$ (12,883)	$ (1,298)	$ (7,049)	$ (19,932)
Adjustments to reconcile net loss incurred in the development stage to net cash used in operating activities:						
In-process research and development acquired from Amgen	2,768	—	2,768	—	—	2,768
Depreciation expense	—	4	4	1	1	5
Investment premium amortization, net	—	—	—	—	16	16
Stock-based compensation expense	292	1,713	2,005	348	3,317	5,322
Interest accrued on notes receivable from stockholder	—	(4)	(4)	—	(1)	(5)
Changes in operating assets and liabilities:						
Other assets	(39)	27	(12)	(2)	1	(11)
Prepaid expenses and other current assets	(35)	(158)	(193)	(161)	44	(149)
Accounts payable	121	485	606	247	421	1,027
Income tax payable	7	148	155	12	(92)	63
Other accrued liabilities	120	312	432	103	557	989
Accrued compensation	51	280	331	21	(132)	199
Net cash used in operating activities	(825)	(5,966)	(6,791)	(729)	(2,917)	(9,708)
Investing activities						
Purchase of short-term investments	—	—	—	—	(22,414)	(22,414)
Purchase of property and equipment	(9)	(3)	(12)	—	(1)	(13)
Net cash used in investing activities	(9)	(3)	(12)	—	(22,415)	(22,427)
Financing activities						
Proceeds from sale of common stock	91	—	91	—	—	91
Repayment of notes receivable from stockholder	—	—	—	—	37	37
Proceeds from sale of unvested restricted stock	4	—	4	—	—	4
Proceeds from sale of convertible preferred stock	5,000	53,587	58,587	15,088	13,500	72,087
Offering costs incurred in connection with sale of convertible preferred stock	(54)	(210)	(264)	(125)	(19)	(283)
Offering costs incurred in anticipation of initial public filing	—	—	—	—	(47)	(47)
Net cash provided by financing activities	5,041	53,377	58,418	14,963	13,471	71,889
Increase (decrease) in cash and cash equivalents	4,207	47,408	51,615	14,234	(11,861)	39,754
Cash and cash equivalents-beginning of period	—	4,207	—	4,207	51,615	—
Cash and cash equivalents-end of period	$ 4,207	$ 51,615	$ 51,615	$18,441	$ 39,754	$ 39,754
Non-cash financing activities						
Issuance of Series A-1 convertible preferred stock to Amgen in exchange for license	$ 1,765	$ 1,003	$ 2,768	$ 1,003	$ —	$ 2,768
Change in obligation to issue Series A-1 convertible preferred stock to Amgen	$ 1,003	$ (1,003)	$ —	$ (1,003)	$ —	$ —
Issuance of common stock upon vesting of stock awards	$ —	$ 105	$ 105	$ 1	$ 20	$ 125
Change in other long-term liabilities related to non-vested stock awards	$ —	$ 226	$ 226	$ 331	$ (20)	$ 206
Restricted stock issued to related party in exchange for notes receivable	$ —	$ 331	$ 331	$ 331	$ —	$ 331
Obligations incurred for offering costs in anticipation of initial public filing	—	—	$ —	$ —	$ 510	$ 510
Supplemental cash flow disclosure—Cash paid for taxes	$ 9	$ 22	$ 31	$ 2	$ 70	$ 101

See accompanying notes.

ATARA BIOTHERAPEUTICS, INC.
(A DEVELOPMENT STAGE COMPANY)
Notes to Combined and Consolidated Financial Statements

1. Organization and Description of Business

Atara Biotherapeutics, Inc. ("Atara"), Nina Biotherapeutics, Inc. ("Nina"), Santa Maria Biotherapeutics, Inc. ("Santa Maria") and Pinta Biotherapeutics, Inc. ("Pinta") (collectively, the "Company," "we" or "our") were incorporated in August 2012 in Delaware. We are a clinical-stage biopharmaceutical company developing novel therapeutics, with an initial focus on biologics for muscle wasting conditions and oncology. Atara was formed as a management company with the sole purpose of providing management, financial and administrative services for Nina, Pinta and Santa Maria.

Our product candidate portfolio was acquired through licensing arrangements with Amgen Inc. ("Amgen") in exchange for convertible preferred stock, milestone payments and commitments for future royalties. See Note 4. Our primary source of funding has been from the issuance of preferred stock. Through March 31, 2014, we have raised $71.8 million in cash from issuances of convertible preferred stock, net of issuance costs, which has been and will be used to fund preclinical studies and clinical trials related to the acquired product candidate portfolio. We have no revenue and have incurred losses since inception.

2. Summary of Significant Accounting Policies

Basis of Presentation and Recapitalization

The accompanying combined and consolidated financial statements have been prepared in accordance with US generally accepted accounting principles and include all adjustments necessary for the presentation of our combined and consolidated financial position, results of operations and cash flows as of the dates and for the periods presented. For the period from inception on August 22, 2012 through March 31, 2014, we were development stage enterprises, as we had not yet begun to generate revenues. The statements of operations and comprehensive loss, convertible preferred stock and stockholders' deficit, and cash flows present our cumulative combined and consolidated financial information for the period from inception on August 22, 2012 through March 31, 2014.

Prior to March 31, 2014, the accompanying financial statements include the operations of Atara, Nina, Pinta and Santa Maria on a combined basis as the four individual companies were under common ownership and common management since inception. All intercompany transactions have been eliminated.

On March 31, 2014, our boards of directors approved and we implemented a recapitalization (the "Recapitalization") in which (a) all the outstanding shares of common stock of Atara were cancelled and forfeited by existing stockholders and (b) the stockholders of Nina, Pinta and Santa Maria exchanged their existing common and convertible preferred stock for newly-issued shares of Atara, with the same rights and privileges as the outstanding capital stock of Nina, Pinta and Santa Maria. The shares were exchanged on a collective nine-for-one basis. The Recapitalization lacked economic substance as the newly-issued shares have the same rights and privileges as the previously outstanding capital stock of Nina, Pinta and Santa Maria and there was no change in ownership percentages of the individual stockholders. As a result of the Recapitalization, Nina, Pinta and Santa Maria became wholly owned subsidiaries of Atara effective March 31, 2014. The Recapitalization is considered a tax-free exchange for US federal income tax purposes.

Because the four individual companies were under common ownership and the Recapitalization lacked economic substance, we accounted for the Recapitalization as a combination of businesses under common control. The assets and liabilities of Nina, Pinta and Santa Maria were recorded by Atara at their historical carrying amounts on March 31, 2014 and beginning March 31, 2014, the financial statements of the Company are presented on a consolidated basis.

ATARA BIOTHERAPEUTICS, INC.
(A DEVELOPMENT STAGE COMPANY)
Notes to Combined and Consolidated Financial Statements

In connection with the Recapitalization, Atara assumed the separate equity incentive plans sponsored by Nina, Pinta and Santa Maria and all outstanding RSUs and restricted stock awards granted under such plans. At the time of settlement, each employee or consultant will receive one share of common stock of Atara for three shares in each of Nina, Pinta, and Santa Maria (collectively, a nine-for-one exchange). At the date of the Recapitalization, RSUs and restricted stock awards issued by Nina, Pinta and Santa Maria to Atara employees became employee awards and the awards' grant dates were established as the Recapitalization date. No new grants will be made under these plans going forward and any new employee incentive grants will be made under a new 2014 Equity Incentive Plan.

Also at the time of the Recapitalization, the mandatory conversion price of the convertible preferred stock upon an initial public offering was reduced from three times the Series B convertible preferred stock price to 1.6 times the Series B convertible preferred stock price.

The following table summarizes the combined shares issued by Nina, Pinta and Santa Maria prior to and by Atara after the Recapitalization:

	Prior to Recapitalization March 31, 2014 (unaudited)	After Recapitalization March 31, 2014 (unaudited)
Series A convertible preferred stock	60,263,250	6,695,913
Series A-1 convertible preferred stock	7,200,000	800,000
Series B convertible preferred stock	76,429,608	8,492,174
	143,892,858	15,988,087
Common stock	16,443,185	1,693,687

Unaudited Interim Financial Statements

The unaudited interim financial statements as of March 31, 2014 and for the three months ended March 31, 2013 and 2014, and for the period from August 22, 2012 (inception) to March 31, 2014 and the related interim information contained within the notes to the combined and consolidated financial statements are unaudited. The unaudited interim financial statements have been prepared on the same basis as the annual financial statements and, in the opinion of management, reflect all adjustments, which include only normal recurring adjustments, necessary to present fairly the Company's consolidated financial position as of March 31, 2014 and its results of operations and cash flows for the three months ended March 31, 2013 and 2014, and for the period from August 22, 2012 (inception) to March 31, 2014. The results of operations and cash flows for the three months ended March 31, 2014 are not necessarily indicative of the results to be expected for the year ending December 31, 2014 or for any other future annual or interim period.

Liquidity

We have incurred significant operating losses since inception and have relied on private equity financings to fund operations. At March 31, 2014, we had an accumulated deficit of $19.9 million. As we continue to incur losses, our transition to profitability will depend on the successful development, approval and commercialization of product candidates and on the achievement of sufficient revenues to support our cost structure. We may never achieve profitability, and unless and until we do, we will need to continue to raise additional capital. Management expects that existing cash and cash equivalents as of March 31, 2014 will be sufficient to fund our current operating plan through the end of 2015.

ATARA BIOTHERAPEUTICS, INC.
(A DEVELOPMENT STAGE COMPANY)
Notes to Combined and Consolidated Financial Statements

Use of Estimates

The preparation of financial statements in conformity with US generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Significant estimates relied upon in preparing these combined and consolidated financial statements include the fair value of common stock, the fair value of preferred stock and estimates related to clinical trial accruals. Actual results could differ materially from those estimates.

Cash and Cash Equivalents

Cash equivalents are defined as short-term, highly liquid investments with original maturities of 90 days or less at the date of purchase, consisting of money market funds that earn interest and dividends overnight. The fair value of these investments approximates their cost.

Investments

Our available-for-sale investments consist primarily of corporate bonds and commercial paper. Investments with original maturities of greater than 90 days are classified as short-term available-for-sale securities on the combined and consolidated balance sheets.

Our investments in available-for-sale securities are reported at fair value. Unrealized gains and losses related to changes in the fair value of securities are recognized in accumulated other comprehensive loss, net of tax, on our combined and consolidated balance sheets. Changes in the fair value of available-for-sale securities impact the statements of operations only when such securities are sold or an other-than-temporary impairment is recognized. Realized gains and losses on the sale of securities are determined by specific identification of each security's cost basis. We regularly review our investment portfolio to determine if any security is other-than-temporarily impaired, which would require us to record an impairment charge in the period any such determination is made. In making this judgment, we evaluate, among other things, the duration and extent to which the fair value of a security is less than its cost, the financial condition of the issuer and any changes thereto, and our intent to sell, or whether it is more likely than not that we will be required to sell the security before recovery of its amortized cost basis. Our assessment on whether a security is other-than-temporarily impaired could change in the future due to new developments or changes in assumptions related to any particular security.

Fair Value Measurement

The carrying amounts of certain of our financial instruments including cash equivalents, accounts payable and accrued liabilities approximate fair value due to their short maturities. Short-term investments are comprised of available-for-sale securities, which are carried at fair value.

Concentration of Credit Risk and Other Uncertainties

We place cash and cash equivalents in the custody of financial institutions that management believes are of high credit quality, which at times, may be in excess of the amount insured by the Federal Deposit Insurance Corporation. We also have short-term investments in money market funds, corporate bonds and commercial paper backed by US Government or private insurers, which can be subject to certain credit risk. However, we mitigate the risks by investing in high-grade instruments, limiting our exposure to any one issuer, and monitoring the ongoing creditworthiness of the financial institutions and issuers.

ATARA BIOTHERAPEUTICS, INC.
(A DEVELOPMENT STAGE COMPANY)
Notes to Combined and Consolidated Financial Statements

We are subject to certain risks and uncertainties and believe that changes in any of the following areas could have a material adverse effect on future financial position or results of operations: ability to obtain future financing; regulatory approval and market acceptance of, and reimbursement for, our product candidates; performance of third-party clinical research organizations and manufacturers upon which we rely; development of sales channels; protection of our intellectual property; litigation or claims against us based on intellectual property, patent, product, regulatory or other factors; and our ability to attract and retain employees necessary to support our growth.

Fair Value of Financial Instruments

Our financial assets and liabilities carried at fair value are primarily comprised of investments in money market funds, corporate bonds and commercial paper. The fair value accounting guidance requires that assets and liabilities be carried at fair value and classified in one of the following three categories:

Level 1: Quoted prices in active markets for identical assets or liabilities that we have the ability to access

Level 2: Observable market based inputs or unobservable inputs that are corroborated by market data such as quoted prices, interest rates and yield curves

Level 3: Inputs that are unobservable data points that are not corroborated by market data

We review the fair value hierarchy classification on a quarterly basis. Changes in the ability to observe valuation inputs may result in a reclassification of levels of certain securities within the fair value hierarchy. We recognize transfers into and out of levels within the fair value hierarchy in the period in which the actual event or change in circumstances that caused the transfer occurs. There were no transfers between Level 1, Level 2, and Level 3 during the period from August 22, 2012 (inception) to December 31, 2012, the year ended December 31, 2013 and the three months ended March 31, 2014.

The following table represents the fair value hierarchy for our financial assets and financial liabilities measured at fair value on a recurring basis:

	Total Fair Value	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)
		(in thousands)	
At December 31, 2013:			
Cash equivalents:			
Money market funds	$51,615	$51,615	$ —
At March 31, 2014 (unaudited):			
Cash equivalents:			
Money market funds	$39,754	$39,754	$ —
Short-term Investments:			
Corporate bonds	$19,285	$ —	$ 19,285
Commercial paper	$ 2,992	$ —	$ 2,992

ATARA BIOTHERAPEUTICS, INC.
(A DEVELOPMENT STAGE COMPANY)
Notes to Combined and Consolidated Financial Statements

Financial assets and liabilities are considered Level 2 when their fair values are determined using inputs that are observable in the market or can be derived principally from or corroborated by observable market data such as pricing for similar securities, recently executed transactions, cash flow models with yield curves, and benchmark securities. In addition, Level 2 financial instruments are valued using comparisons to like-kind financial instruments and models that use readily observable market data as their basis.

Financial assets and liabilities are considered Level 3 when their fair values are determined using pricing models, discounted cash flow methodologies, or similar techniques, and at least one significant model assumption or input is unobservable. We have no Level 3 financial assets and liabilities.

Available-for-sale investments are carried at fair value and are included in the tables above under short-term investments. The aggregate market value, cost basis, and gross unrealized gains and losses of available-for-sale investments by major security type are as follows:

	Total Amortized Cost	Total Unrealized Gain	Total Unrealized Loss	Total Fair Value
		(in thousands)		
At March 31, 2014 (unaudited):				
Short-term investments:				
Corporate bonds	$19,296	$ 3	$ (14)	$19,285
Commercial paper	2,992	—	—	2,992
Total short-term investments	$22,288	$ 3	$ (14)	$22,277

The amortized cost and fair value of available-for-sale debt investments, by contractual maturity, were as follows:

	Total Amortized Cost	Total Fair Value
	(in thousands)	
At March 31, 2014 (unaudited):		
Maturing within one year	$14,214	$14,208
Maturing in one to five years	8,075	8,069
Short-term available for sale investments	$22,289	$22,277

Segment and Geographic Information

We operate and manage our business as one reporting and one operating segment, which is the business of developing and commercializing therapeutics. Our chief executive officer (“CEO”), who is our chief operating decision maker, reviews financial information on an aggregate basis for purposes of allocating resources and evaluating financial performance. All of our assets are located in the United States.

Property and Equipment, Net

Property and equipment are stated at cost and depreciated using the straight-line method over the estimated useful lives of the assets, ranging from three to five years. Maintenance and repairs are charged to operations as incurred.

ATARA BIOTHERAPEUTICS, INC.
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Long-lived Assets

We evaluate the carrying amount of our long-lived assets whenever events or changes in circumstances indicate that the assets may not be recoverable. An impairment loss would be recognized when estimated future cash flows expected to result from the use of the asset and its eventual disposition are less than the carrying amount of the asset. To date, there have been no such impairment losses.

Convertible Preferred Stock

We recorded issued convertible preferred stock at fair value on the dates of issuance. The convertible preferred stock is recorded outside of stockholders' deficit because the shares contain liquidation features that are not solely within our control. We have elected not to adjust the carrying values of the convertible preferred stock to the liquidation preferences of such shares because it is uncertain whether or when an event would occur that would obligate us to pay the liquidation preferences to holders of shares of convertible preferred stock. Subsequent adjustments to increase the carrying values to the liquidation preferences will be made only when it becomes probable that such a liquidation event will occur.

Estimated Fair Value of Series A-1 Convertible Preferred Stock

In consideration for the licenses of our product candidate portfolio, we issued 7,200,000 shares of Series A-1 convertible preferred stock (800,000 shares after giving effect to the Recapitalization) and paid $250,000 to Amgen. We estimated the fair value of the acquired licenses to be the sum of $250,000 and the fair value of the Series A-1 convertible preferred stock preferred stock issued. This amount was expensed as acquired in-process research and development during the period from August 22, 2012 (inception) to December 31, 2012. See Note 4.

We estimated the fair value of our Series A-1 preferred stock to be $2,768,000 by using the option pricing model, or OPM, backsolve method. OPM treats the rights of the holders of shares of preferred and common stock as equivalent to call options on any value of the enterprise above certain break points of value based upon the liquidation preferences of the holders of preferred stock, as well as their rights to participation and conversion. Thus, the estimated value of the Series A-1 convertible preferred stock can be determined by estimating the value of its portion of each of these call option rights. The OPM backsolve method derives the implied equity value of a company from a recent transaction involving the company's own securities issued on an arm's-length basis. This implied equity value was then allocated to each part of our capital structure, including our Series A-1 convertible preferred stock and common stock. Significant assumptions included an estimated volatility of 53.3%, a risk free interest rate of 0.28% and a time to exit of 2.25 years.

Stock-Based Compensation Expense

We account for stock-based compensation expense, including the expense of restricted common stock awards and grants of restricted stock units that may be settled in shares of our common stock ("RSUs"), based on the fair values of the equity instruments issued. The fair value is determined on the measurement date, which is generally the date of grant for employee awards and the date when the service performance is completed for non-employees. The fair value for our restricted common stock awards is their intrinsic value, which is the difference between the fair value of the underlying stock at the measurement date and the purchase price. The fair value of our RSUs is the fair value of the

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underlying stock at the measurement date. Stock-based compensation expense for awards with time-based vesting criteria is recognized as expense on a straight-line basis over the requisite service period for employees and on an accelerated graded vesting basis for non-employees. For employees' awards with performance-based vesting criteria, we assess the probability of the achievement of the performance conditions at the end of each reporting period and recognize the share-based compensation costs when it becomes probable that the performance conditions will be met. For non-employees' awards with performance-based vesting criteria, we assess all possible outcomes at the end of each reporting period and recognize the lowest aggregate fair value in the range of possible outcomes. The lowest value in the range of possible outcomes may be zero. For awards that are subject to both service and performance conditions, no expense is recognized until it is probable that performance conditions will be met.

The estimated fair value of our common stock was determined at each valuation date in accordance with the guidelines outlined in the American Institute of Certified Public Accountants Practice Aid, Valuation of Privately-Held-Company Equity Securities Issued as Compensation. Our board of directors, with the assistance of management, developed these valuations using significant judgment and taking into account numerous factors, including developments at our company, market conditions and contemporaneous independent third-party valuations with effective dates as of December 31, 2012, March 5, 2013, November 25, 2013, January 8, 2014 and March 31, 2014.

For each valuation date through January 8, 2014, we determined the fair value of our common stock by using the OPM backsolve method. We adjusted our estimates of fair value between valuation periods based upon changes in overall market conditions or achievement of milestones.

Our board of directors instructed management to consider an initial public offering in late January and in early March 2014, we selected investment bankers. The increased probability of an initial public offering was taken into consideration in the March 31, 2014 valuation, which is a critical factor contributing to the increase in the fair value of our common stock as of that date. For purposes of the March 31, 2014 valuation, a hybrid method was used to determine the fair value of our common stock, which incorporated use of both the probability-weighted return methodology, or PWERM, and the OPM. The PWERM is a scenario-based analysis that estimates the value per share based on the probability-weighted present value of expected future investment returns, considering each of the possible outcomes available to us, as well as the economic and control rights of each share class. In the hybrid method, the OPM is used to estimate the allocation of value within one or more of PWERM scenarios. The hybrid method can be a useful alternative to explicitly modeling all PWERM scenarios in situations when the company has transparency into one or more near-term exits but is unsure about what will occur if the current plans fall through. The hybrid model was selected at this time for the reasons described relating to our plans for a potential initial public offering.

Under the hybrid method, the OPM was used to allocate the equity value considering the probability that an initial public offering does not occur in the near-term. Under this scenario, private transactions in our Series B shares and a discounted cash flow analysis were utilized to determine the fair value of the company. This value was then allocated using an OPM to determine the fair value of our shares under this scenario. The PWERM scenarios in the hybrid method consider three near-term exit events. The first scenario assumed we would complete an initial public offering within four months, the second scenario assumed we would complete an initial public offering within 13 months and the third scenario assumed we would complete an initial public offering within 21 months. The estimated time to liquidity was based on the probability weighted time of a liquidity event considering the four scenarios.

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Significant assumptions for each valuation include:

	Combined Common Stock Value[1]	Volatility[2]	Risk-free Rate	Years to Exit	Discount for Lack of Marketability
December 31, 2012	$ 1.23	53.3%	0.28%	2.25	29.7%
March 5, 2013	$ 1.26	54.5%	0.25%	2.00	29.7%
November 25, 2013	$ 1.97	54.2%	0.26%	1.75	26.9%
January 8, 2014	$ 2.06	53.2%	0.32%	1.63	25.5%
March 31, 2014[3]	$ 6.61	56.0%	0.14%	1.03	21.8%

(1) Common stock value is presented giving effect to the Recapitalization.
(2) The computation of expected volatility is based on the historical volatility of a representative group of public biotechnology and life sciences companies with similar characteristics, including early stage of product development and therapeutic focus.
(3) Derived by using OPM and PWERM in the hybrid method using multiple scenarios.

Research and Development Expense

Research and development expense consists of costs incurred in performing research and development activities, including compensation and benefits for research and development employees, an allocation of facility and overhead expenses, expenses incurred under agreements with contract research organizations and investigative sites that conduct clinical trials and preclinical studies, the costs of acquiring and manufacturing clinical trial materials, and other supplies and costs associated with product development efforts, preclinical activities and regulatory operations. Research and development costs are expensed as incurred.

Costs for preclinical study and clinical trial activities are recognized based on an evaluation of our vendors' progress towards completion of specific tasks, using data such as patient enrollment, clinical site activations or information provided to us by our vendors regarding their actual costs incurred. Payments for these activities are based on the terms of individual contracts and payment timing may differ significantly from the period in which the services are performed. We determine accrual estimates through reports from and discussions with applicable personnel and outside service providers as to the progress or state of completion of trials, or the services completed. Our estimates of accrued expenses as of each balance sheet date are based on the facts and circumstances known at the time. Costs that are paid in advance of performance are deferred as a prepaid expense and amortized over the service period as the services are provided.

Income Taxes

We use the assets and liability method to account for income taxes. We record deferred tax assets and liabilities for the expected future tax consequences of temporary differences between the financial statement carrying amounts and the tax basis of assets and liabilities using enacted tax rates expected to be in effect when the differences are expected to reverse. Valuation allowances are provided when necessary to reduce net deferred tax assets to the amount that is more likely than not to be realized. Based on the available evidence, we are unable, at this time, to support the determination that it is more likely than not that our deferred tax assets will be utilized in the future. Accordingly, we recorded a full valuation allowance as of December 31, 2013 and 2012. We intend to maintain valuation allowances until sufficient evidence exists to support its reversal.

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Tax benefits related to uncertain tax positions are recognized when it is more likely than not that a tax position will be sustained during an audit. Interest and penalties related to unrecognized tax benefits are included within the provision for income tax.

Comprehensive Loss

Comprehensive loss is defined as a change in equity of a business enterprise during a period resulting from transactions from non-owner sources. Other comprehensive loss includes net loss and unrealized losses on available-for-sale investments.

Net Loss Per Common Share

Basic net loss per common share is presented, giving effect to the Recapitalization, including cancellation of existing Atara common stock and a nine-for-one share exchange and is calculated by dividing the net loss by the weighted-average number of shares of common stock outstanding during the period, without consideration of common stock equivalents. Diluted net loss per common share is computed by dividing the net loss by the weighted-average number of shares of common stock and common share equivalents outstanding for the period. Common share equivalents are only included in the calculation of diluted net loss per common share when their effect is dilutive. Our convertible preferred stock and restricted stock awards are considered to be participating securities as they are entitled to participate in undistributed earnings with shares of common stock. Due to net losses, there is no impact on earnings per share calculation in applying the two-class method since the participating securities have no legal requirement to share in any losses.

Potential dilutive securities, which include convertible preferred stock and unvested restricted common stock awards have been excluded from the computation of diluted net loss per share as the effect would be to reduce the net loss per common share and be antidilutive. Therefore, the denominator used to calculate both basic and diluted net loss per common share is the same in all periods presented.

The following shares of potentially dilutive securities, give effect to the Recapitalization, and have been excluded from the computations of diluted net loss per common share as the effect of including such securities would be antidilutive:

	Period from August 22, 2012 (Inception) to December 31, 2012	Year Ended December 31, 2013	Three months ended March 31,	
			2013	2014
			(unaudited)	
Convertible preferred stock	1,170,861	7,536,896	5,211,754	15,792,123
Unvested restricted common stock	423,990	1,027,281	881,838	1,006,687
	1,594,851	8,564,177	6,093,592	16,798,810

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Recent Accounting Pronouncements

In July 2013, the Financial Accounting Standards Board issued a new accounting standard to clarify that an unrecognized tax benefit, or a portion thereof, should be presented in the financial statements as a reduction to a deferred tax assets for a net operating loss carryforward, a similar tax loss, or a tax credit carryforward, except to the extent that a net operating loss carryforward, a similar tax loss, or a tax credit carryforward is not available at the reporting date to settle any additional income taxes that would result from disallowance of a tax position, or the tax law does not require the entity to use and the entity does not intend to use the deferred tax asset for such a purpose, then the unrecognized tax benefit should be presented as a liability. We adopted this new standard effective January 1, 2014. The adoption of this new accounting standard did not have a significant impact on our financial condition or results of operations.

Subsequent Events

We evaluated subsequent events from December 31, 2013 through April 9, 2014 and from March 31, 2014 through May 22, 2014, the date when these combined and consolidated financial statements were available for issuance. We have concluded that no subsequent events have occurred that require disclosure.

3. Property and Equipment

Property and equipment consists of computer equipment and software, which is depreciated over the estimated useful lives of the assets, ranging from three to five years. Depreciation and amortization expense for the period from August 22, 2012 (inception) to December 31, 2012, the year ended December 31, 2013 and the period from August 22, 2012 (inception) to December 31, 2013 was $246, $3,577, and $3,823, respectively. Accumulated depreciation and amortization as of December 31, 2012 and 2013 was $246 and $3,823 respectively.

Depreciation and amortization expense for the three months ended March 31, 2013 and 2014 and the period from August 22, 2012 (inception) to March 31, 2014 was $737, $1,115 and $4,938, respectively. Accumulated depreciation and amortization as of March 31, 2014 was $4,938.

4. Related Party License Agreement

In September 2012, we entered into three license agreements with Amgen for the development, manufacturing, use and distribution of products using certain proprietary compounds. Under the terms of these agreements, we paid $250,000 and issued 7,200,000 shares of Series A-1 convertible preferred stock (2,400,000 shares of each of Nina, Pinta and Santa Maria) to Amgen. As described further in Note 5, we may also be required to make additional payments to Amgen based upon the achievement of specified development, regulatory, and commercial milestones, as well as mid-single-digit percentage royalties on future sales of products resulting from development of this purchased technology, if any. These agreements expire at the end of all royalty obligations to Amgen and, upon expiration, the licenses will be fully paid, royalty-free, irrevocable and non-exclusive.

The license agreements with Amgen did not provide for the acquisition of employees, facilities or ongoing services and we determined that the acquired license rights did not constitute an acquisition of a business. As the licensed compounds are in an early stage of development, and the underlying technology has no alternative future uses, the $3,018,000 total of the upfront payment of $250,000 and the $2,768,000 value of the Series A-1 convertible preferred stock issuable under the agreements was recorded as acquired in-process research and development expense in our combined statements of

operations and comprehensive loss for the period from August 22, 2012 (inception) to December 31, 2012. Milestones and royalties are contingent upon future events and will be recorded as expense when it is probable that the milestones will be achieved and we can reasonably estimate payment amounts.

In 2012, we issued 4,591,305 shares of Series A-1 convertible preferred stock valued at $1,765,000 to Amgen and recorded a liability of $1,003,000 for the value of the remaining 2,608,695 shares of Series A-1 convertible preferred stock that we were obligated to issue to Amgen. These shares were issued in January and March 2013.

In 2013, Amgen purchased 7,348,977 shares of Series B convertible preferred stock for $5,000,000. At December 31, 2013, Amgen owns 9.8% of our outstanding voting capital stock on a combined basis. Amgen does not have any rights to participate in our product candidates' development and is not represented on our boards of directors.

During 2013, we purchased additional clinical supplies for a total purchase price of $552,772 from Amgen, which was recorded as research and development costs paid to Amgen in 2013.

We made no purchases from Amgen during the three months ended March 31, 2013 and 2014.

5. Commitments and Contingencies

Operating Leases

In September 2013, we entered into a noncancelable operating lease for our facility in Westlake Village, California. The lease term commenced in October 2013 and will expire in October 2014. Rent expense for this facility is recognized on a straight-line basis over the term of the lease, and the difference between amounts paid and amounts recorded as rent expense are recorded as deferred rent. Future minimum lease payments under this lease are $31,900 in 2014.

We also lease an office facility in Brisbane, California under a sublease that expires in January 2015. Future minimum payments under this lease are $23,220 in 2014 and $811 in 2015. Rent expense for the period from August 22, 2012 (inception) to December 31, 2012, the year ended December 31, 2013 and the period from August 22, 2012 (inception) to December 31, 2013 was $8,250, $57,553, and $65,803, respectively.

Rent expense for the three months ended March 31, 2013 and 2014 and the period from August 22, 2012 (inception) to March 31, 2014 was $13,181, $14,640 and $80,443, respectively.

Related Party License Agreements

Under the terms of our license agreements with Amgen, we are obligated to make additional milestone payments to Amgen of up to $86.0 million upon the achievement of certain development and regulatory approval milestones. Of these milestone payments, $14.0 million relate to milestones for clinical trials. The remaining $72.0 million relate to milestones for regulatory approvals in various territories and are anticipated to be made no earlier than 2017. Thereafter, we are obligated to make tiered payments based on achievement of commercial milestones based upon net sales levels. The maximum payments would be $206.0 million based on sales of over $1 billion for each of three products in a calendar year. We are also obligated to pay mid-single-digit percentage tiered royalties on future net sales of products which are developed and approved as defined by the agreements. Our royalty obligations as to a particular licensed product will be payable, on a country-by-country and

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product-by-product basis, until the later of (a) the date of expiration of the last to expire valid claim within the licensed patents that covers the manufacture, use or sale, offer to sell, or import of such licensed product by us or a sublicense in such country, (b) loss of regulatory exclusivity or (c) 10 years after the first commercial sale of the applicable licensed product in the applicable country. As of December 31, 2013 and March 31, 2014, there were no outstanding obligations due to Amgen. We expect to make a $1.0 million milestone payment in the second quarter of 2014.

In accordance with terms of the agreements, we use commercially reasonable efforts to pay costs related to the preparation, filing, prosecution, defense and maintenance of the patents covered by the license agreements. In 2012 and 2013, we incurred expenses of $0.1 million and $0.8 million related to the preparation, filing and maintenance of patents. During the three months ended March 31, 2013 and 2014, we incurred expenses of $294,591 and $218,072, respectively, related to the preparation, filing and maintenance of patents.

Indemnification Agreements

In the normal course of business, we enter into contracts and agreements that contain a variety of representations and warranties and provide for indemnification for certain liabilities. The exposure under these agreements is unknown because it involves claims that may be made against us in the future but have not yet been made. To date, we have not paid any claims or been required to defend any action related to our indemnification obligations. However, we may record charges in the future as a result of these indemnification obligations. We also have indemnification obligations to our directors and executive officers for specified events or occurrences, subject to some limits, while they are serving at our request in such capacities. There have been no claims to date and we believe the fair value of these indemnification agreements is minimal. Accordingly, we have not recorded any liabilities for these agreements as of December 31, 2013 and March 31, 2014.

6. Convertible Preferred Stock and Stockholders' Deficit

Convertible preferred shares issued and authorized as of December 31, 2012 and 2013 were as follows:

	As of December 31, 2012							
	Nina		Pinta		Santa Maria		Combined Total	
	Shares	Carrying Value	Shares	Carrying Value	Shares	Carrying Value	Shares	Carrying Value
	(dollars in thousands)							
Issued and outstanding:								
Series A convertible preferred stock	5,000,000	$ 574	5,000,000	$2,478	5,000,000	$1,894	15,000,000	$4,946
Series A-1 convertible preferred stock	1,530,435	365	1,530,435	864	1,530,435	536	4,591,305	1,765
	6,530,435	$ 939	6,530,435	$3,342	6,530,435	$2,430	19,591,305	$6,711
Authorized:								
Series A convertible preferred stock	17,000,000		17,000,000		17,000,000		51,000,000	
Series A-1 convertible preferred stock	2,400,000		2,400,000		2,400,000		7,200,000	
	19,400,000		19,400,000		19,400,000		58,200,000	

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	As of December 31, 2013							
	Nina		Pinta		Santa Maria		Combined Total	
	Shares	Carrying Value	Shares	Carrying Value	Shares	Carrying Value	Shares	Carrying Value
	(dollars in thousands)							
Issued and outstanding:								
Series A convertible preferred stock	20,087,750	$2,306	20,087,750	$ 9,963	20,087,750	$ 7,640	60,263,250	$19,909
Series A-1 convertible preferred stock	2,400,000	573	2,400,000	1,355	2,400,000	840	7,200,000	2,768
Series B convertible preferred stock	18,862,455	2,496	18,862,455	17,960	18,862,455	17,958	56,587,365	38,414
	41,350,205	$5,375	41,350,205	$29,278	41,350,205	$26,438	124,050,615	$61,091
Authorized:								
Series A convertible preferred stock	20,087,750		20,087,750		20,087,750		60,263,250	
Series A-1 convertible preferred stock	2,400,000		2,400,000		2,400,000		7,200,000	
Series B convertible preferred stock	22,048,016		22,048,016		22,048,016		66,144,048	
	44,535,766		44,535,766		44,535,766		133,607,298	

	As of March 31, 2014 (unaudited)		
	Authorized Shares	Outstanding Shares	Carrying Value
		(dollars in thousands)	
Series A convertible preferred stock	6,695,913	6,695,913	$19,909
Series A-1 convertible preferred stock	800,000	800,000	2,768
Series B convertible preferred stock	8,492,174	8,492,174	51,895
	15,988,087	15,988,087	$74,572

Original issuance prices of Series A convertible preferred stock, prior to issuance costs, were $0.117, $0.500 and $0.383 per share, for Nina, Pinta and Santa Maria, respectively, or $1.00 per share on a combined basis. Original issuance prices of Series B convertible preferred stock, prior to issuance costs were $0.133, $0.954 and $0.954 per share, for Nina, Pinta and Santa Maria, respectively, or $2.04 per share on a combined basis. Amgen contributed licenses for issued Series A-1 convertible preferred stock with fair values of $0.239, $0.565 and $0.350 per share for Nina, Pinta and Santa Maria, respectively, or $1.15 per share on a combined basis.

In connection with the Recapitalization on March 31, 2014, the stockholders of Nina, Pinta and Santa Maria exchanged three shares of each company's preferred stock for one share of Atara preferred stock (a collective nine-for-one basis). The deemed original issuance prices of the new Atara preferred shares, for the calculation of the dividends and liquidation preference discussed below are $3.00, $3.75, and $6.1233 for Series A, Series A-1, and Series B, respectively.

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Nina, Pinta and Santa Maria issued convertible preferred stock with the same rights and privileges to the same investors. As of December 31, 2013, Atara had not issued any convertible preferred stock. In connection with the Recapitalization on March 31, 2014, Atara issued convertible preferred stock with the same rights and privileges and with the same ownership percentages as the convertible preferred stock previously issued by Nina, Pinta and Santa Maria. The significant rights, privileges, and preferences of our convertible preferred stock are as follows:

Dividend Provisions

The holders of the outstanding shares of convertible preferred stock are entitled to receive, when and if declared by our boards of directors, noncumulative annual dividends at a rate of 8% of the $20,087,750 and $38,500,000 liquidation preferences for the Series A and Series B convertible preferred stock, respectively, and 8% of the $3,000,000 liquidation preference for Series A-1 convertible preferred stock. After payments of such dividends, any additional dividends are paid to common and convertible preferred stock holders on an as-converted to common stock basis. No dividends were declared or paid through March 31, 2014.

Liquidation Preference

In the event of any liquidation, dissolution, winding up or change in control of the Company, the holders of Series B convertible preferred stock are entitled to receive a liquidation amount of $38,500,000 plus all declared but unpaid dividends prior and in preference to the holders of Series A and Series A-1 convertible preferred stock and the common stock. Following payment of these liquidation amounts, if proceeds for distribution remain, the holders of the Series A-1 convertible preferred and Series A convertible preferred stock, pro rata as a single group, are entitled to receive a liquidation amount of $20,087,750 and $3,000,000, respectively, plus all declared but unpaid dividends prior and in preference to the common stockholders. Thereafter, any proceeds remaining for distribution would be distributed pro rata among the common stockholders. Holders of convertible preferred stock may choose to receive the liquidation preference described above as preferred stockholders or instead may participate with the common stock in remaining liquidation proceeds on an as-converted to common stock basis.

Conversion Rights

Each share of convertible preferred stock is convertible, at the option of the holder and at any time, into shares of common stock on a one-for-one basis, subject to certain anti-dilution adjustments.

Each share of convertible preferred stock, subject to certain anti-dilution adjustments, will be automatically converted into one fully paid and nonassessable share of common stock at the applicable conversion rate upon the earlier of: (i) an initial public offering with a pre-initial public offering valuation that results in a price to the public of at least three times the Series B issue price (reduced to 1.6 times following the Recapitalization—see Note 2) and minimum proceeds to us of $30,000,000 or (ii) the date specified by a vote of the holders of a majority of outstanding shares of preferred stock.

Subject to customary exceptions, our amended and restated certificates of incorporation provide anti-dilution protection for holders of convertible preferred stock in the event that we issue additional shares of common stock, options or rights to purchase common stock or securities convertible into common stock without consideration or at a price per share that is less than the then-effective conversion price of any series of the convertible preferred stock, which is referred to as a dilutive issuance. Our amended and restated certificates of incorporation provide that the conversion price shall be adjusted to protect holders of convertible preferred stock from certain dilutive issuances based on a weighted-average formula.

In addition to the anti-dilution protections described above, the conversion price of the convertible preferred stock is subject to adjustments for stock splits, dividends and recapitalizations.

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Voting Rights

The holder of each share of convertible preferred stock has the right to one vote for each share of common stock into which such share of convertible preferred stock could be converted. Additionally, specific protective provisions require approval of the holders of a majority of the outstanding shares of convertible preferred stock.

Election of Directors

The members of the boards of directors of Nina, Pinta and Santa Maria were identical for all three companies for the periods presented and were elected as follows: (i) one person was elected by the holders of the common stock; (ii) two persons were elected by the holders of our Series A convertible preferred stock;(iii) one person was elected by the holders of our Series B convertible preferred stock; and (iv) the remaining directors were elected by the holders of our common stock and convertible preferred stock as a single class.

The members of the board of directors of Atara after the Recapitalization were elected as follows: (i) one person was elected by the holders of the common stock; (ii) two persons were elected by the holders of our Series A convertible preferred stock; (iii) one person was elected by the holders of our Series B convertible preferred stock; and (iv) the remaining directors were elected by the holders of our common stock and convertible preferred stock as a single class.

7. Common Stock and Additional Paid-in Capital

Common stock issued, outstanding and authorized and additional paid-in capital as of December 31, 2012 and 2013 were as follows:

	As of December 31, 2012									
	Nina		Pinta		Santa Maria		Atara		Combined Total	
	Shares	Carrying Value	Shares	Carrying Value	Shares	Carrying Value	Shares	Carrying Value	Shares	Carrying Value
	(dollars in thousands)									
Issued and outstanding:										
Common stock, par value	3,100,000	$ —	3,100,000	$ —	3,100,000	$ 1	400,000	$ —	9,700,000	$ 1
Additional paid-in capital	—	57	—	190	—	135	—	—	—	382
	3,100,000	$ 57	3,100,000	$ 190	3,100,000	$ 136	400,000	$ —	9,700,000	$ 383
Authorized	37,000,000		37,000,000		37,000,000		1,000,000		112,000,000	

	As of December 31, 2013									
	Nina		Pinta		Santa Maria		Atara		Combined Total	
	Shares	Carrying Value	Shares	Carrying Value	Shares	Carrying Value	Shares	Carrying Value	Shares	Carrying Value
	(dollars in thousands)									
Issued and outstanding:										
Common stock, par value	4,801,687	$ —	4,801,687	$ —	4,801,687	$ 1	1,200,000	$ 1	15,605,061	$ 2
Additional paid-in capital	—	147	—	1,017	—	1,035	—	—	—	2,199
	4,801,687	$ 147	4,801,687	$ 1,017	4,801,687	$ 1,036	1,200,000	$ 1	15,605,061	$ 2,201
Authorized	70,000,000		70,000,000		70,000,000		1,200,000		211,200,000	

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Common stock issued and outstanding during the three months ended March 31, 2014 was as follows:

	Authorized	Outstanding
As of December 31, 2013	211,200,000	15,605,061
Issuance of common stock upon vesting of awards	—	838,125
Recapitalization:		
Cancellation of Atara shares	(1,200,000)	(1,200,000)
Tender of Nina, Pinta and Santa Maria shares	(210,000,000)	(15,243,186)
Issuance of Atara shares	23,333,333	1,693,687
As of March 31, 2014 (unaudited)	23,333,333	1,693,687

We have reserved the following shares of common stock for issuance (presented on a combined basis as of December 31, 2013):

	December 31, 2013	March 31, 2014[1] (unaudited)
Conversion of Series A convertible preferred stock	60,263,250	6,695,913
Conversion of Series A-1 convertible preferred stock	7,200,000	800,000
Conversion of Series B convertible preferred stock	56,587,365	8,492,174
Common stock available for grant of stock awards	22,128,500	1,682,231
Common stock issuable for RSUs outstanding and non-vested restricted stock	13,596,435	2,194,082
	159,775,550	19,864,400

(1) The share amounts presented as of March 31, 2014 reflect the impact of the Recapitalization after giving effect to the nine-for-one stock exchange.

Restricted Common Stock

In August 2012, in connection with our formation, our CEO purchased 12,474,000 shares of restricted common stock at a nominal per share purchase price. The shares were issued subject to certain vesting conditions, restrictions on transfer and a Company right of repurchase of any unvested share at their original purchase price. These shares are placed in escrow until vested, and have rights to vote and participate in dividends and distributions. 10,395,000 of these shares have service and fundraising vesting conditions. Under the service vesting condition, shares vest monthly over 48 months, commencing from the first closing of Series A convertible preferred stock financing on October 22, 2012. 2,079,000 of these shares are subject to performance milestones and fundraising vesting conditions. The fundraising vesting conditions for all shares were satisfied as of December 31, 2013. All shares subject to service vesting conditions are subject to accelerated vesting in the event of certain change of control transactions.

The combined grant date intrinsic value for this award was $1,704,094. As of December 31, 2013 there was $887,904 of unrecognized stock-based compensation expense related to this restricted common stock. Assuming an initial public offering had occurred on December 31, 2013, $158,282 of this stock-based compensation cost would have been recognized in our statement of operations and comprehensive loss for 2013 and $729,622 would be recognized over the remaining service periods through 2016.

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Notes to Combined and Consolidated Financial Statements

As of March 31, 2014, there was $2,379,035 of unrecognized stock-based compensation expense related to this restricted common stock. Assuming an initial public offering had occurred on March 31, 2014, $511,280 of this stock-based compensation would have been recognized in our statement of operations and comprehensive loss for the three months ended March 31, 2014 and $1,867,755 would have been recognized over the remaining service periods through 2016.

In March 2013, an Atara employee purchased 3,149,997 shares of restricted common stock for $331,170. The shares were issued under our 2012 Equity Incentive Plan (as discussed below) and are subject to certain vesting conditions, restrictions on transfer and a Company right of repurchase of any unvested shares at their original purchase price. These shares are placed in escrow until vested, and have rights to vote and participate in dividends and distributions. Under these agreements, the shares vest as follows: 3,014,997 shares vest over four years, with one-quarter vesting after one year of service and the remainder vesting in equal installments over the subsequent thirty-six months, and 135,000 shares vest upon achievement of certain performance milestones. Vesting of all shares is subject to acceleration of vesting in the event of certain change of control transactions.

The combined grant date intrinsic value for this award was $98,500. As of December 31, 2013, there was $125,407 of unrecognized stock-based compensation expense related to this restricted common stock. Assuming an initial public offering had occurred on December 31, 2013, $5,552 of this stock-based compensation cost would have been recognized in our statement of operations and comprehensive loss for 2013, $5,552 would be recognized upon completion of a performance milestone in 2014, and $114,303 would be recognized over the remaining service periods through 2016.

As of March 31, 2014, there was $521,469 of unrecognized stock-based compensation expense related to this restricted common stock. Assuming an initial public offering had occurred on March 31, 2014, $56,938 of this stock-based compensation expense would have been recognized in our statement of operations and comprehensive loss for the three months ended March 31, 2014 and $464,531 would have been recognized over the remaining service periods through 2016.

The restricted common stock was purchased with secured promissory notes totaling $331,170. The notes bear interest at an annual interest rate of 1.5% and are due on the earlier of five years following the purchase date, the sale or transfer of the related shares, termination of employment or the date prior to the date of a filing of a registration statement with the Securities and Exchange Commission. The notes are secured by shares of common stock owned by the employee and are included in stockholders' deficit in our combined and consolidated balance sheets. In March 2014, $37,716 of the outstanding balance was repaid.

The amounts paid for both restricted stock purchases were initially recorded as other long-term liabilities. As shares vest, we reclassify liabilities to equity and report shares as outstanding in the combined and consolidated statements of convertible preferred stock and stockholders' deficit. At December 31, 2013, 5,405,062 shares had vested and are classified as equity. Restricted stock shares not vested at December 31, 2013 totaled 10,218,935 shares and are expected to vest over three years.

Prior to the Recapitalization, 6,243,187 shares had vested and were classified as equity. On March 31, 2014, these shares were exchanged for 693,687 shares of Atara common stock. Restricted shares not vested at March 31, 2014 totalled 9,380,810 and these shares were exchanged for 1,042,312 shares of Atara restricted common stock.

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As both the Chief Executive Officer and the Atara employee were consultants of Nina, Pinta and Santa Maria through the Recapitalization date, we accounted for these awards as non-employee stock-based awards. Following the Recapitalization, these awards will be accounted as employee awards based upon the fair market value at March 31, 2014. Total stock-based compensation expense related to these awards was as follows:

	Period from August 22, 2012 (Inception) to December 31, 2012	Year Ended December 31, 2013	Period from August 22, 2012 (Inception) to December 31, 2013	Three months ended March 31, 2013 (unaudited)	Three months ended March 31, 2014 (unaudited)	Period from August 22, 2012 (Inception) to March 31, 2014 (unaudited)
	(in thousands)					
Research and development	$ —	$ 251	$ 251	$ 39	$ 705	$ 956
General and administrative	292	1,462	1,754	309	2,612	4,366
	$ 292	$ 1,713	$ 2,005	$ 348	$ 3,317	$ 5,322

As this stock-based compensation expense relates to shares of common stock for which the fundraising condition was met and our right of repurchase has lapsed, these amounts have been recorded as additional paid-in capital in our combined and consolidated balance sheets.

2012 Equity Incentive Plans

We adopted the Nina 2012 Equity Incentive Plan, Pinta 2012 Equity Incentive Plan and Santa Maria 2012 Equity Incentive Plan (collectively, the “plans”) in November 2012. Under the terms of the plans, we may grant options, restricted stock awards and RSUs to employees, directors, consultants and other service providers. Employees typically receive an award upon commencement of employment and non-employee members of our boards of directors receive an award in connection with their appointment. At December 31, 2013, the aggregate number of awards available to be issued under the plans was 22,128,500 shares of common stock. RSUs expire at the earlier of seven years from the date of grant or two years following the service termination date (or, for RSUs granted after January 2014, the service termination date). Generally, if any shares subject to an award expire, or are forfeited, terminated or cancelled without the issuance of shares, the shares are added back into the total shares available for issuance under the plans.

Through December 31, 2013, we have granted restricted common stock (discussed above) and RSUs under the plans. The RSUs have a time-based service condition and a liquidity-based performance condition, and will vest when both conditions are met. We have determined that the liquidity-based performance condition is not probable of occurring and have recorded no compensation expense related to the RSUs during the period from August 22, 2012 (inception) to December 31, 2013. As of December 31, 2013, there was approximately $788,335 of unrecognized stock-based compensation expense related to nonvested RSUs. Assuming an initial public offering had occurred on December 31, 2013, $417,512 of this stock-based compensation expense would have been recognized in our statement of operations and comprehensive loss for 2013 and $370,823 would be recognized over the remaining service periods through 2017.

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As the restricted common stock and the RSUs were granted by Nina, Pinta and Santa Maria, the grants are considered to be non-employee awards until the Recapitalization. Accordingly, the fair value of the awards is remeasured at each period end by multiplying the number of unvested shares by the per-share fair value of common stock at period end. A summary of the awards granted and vested on a combined and consolidated basis during the period from August 22, 2012 (inception) to March 31, 2014 is as follows:

	Combined Number of Units/Awards	Weighted-average Grant Date Fair Value
Unvested at December 31, 2012	—	$ —
Granted—Restricted stock units	3,377,500	$ 0.145
Granted—Restricted stock awards	3,149,997	$ 0.035
Vested—Restricted stock awards	(987,187)	$ 0.035
Unvested at December 31, 2013	5,540,310	$ 0.102
Granted—Restricted stock units (unaudited)	6,988,478	$ 0.466
Vested—Restricted stock awards (unaudited)	(188,437)	$ 0.035
Unvested at March 30, 2014 (unaudited)	12,340,351	$ 0.310
Recapitalization (Note 2) (unaudited)	(10,969,207)	
Unvested at March 31, 2014 (unaudited)	1,371,144	$ 2.786

Through March 31, 2014, we have granted restricted common stock (discussed above) and RSUs under the plans. The RSUs have a time-based service condition and a liquidity-based performance condition, and will vest when both conditions are met. We have determined that the liquidity-based performance condition is not probable of occurring and have recorded no compensation expense related to the RSUs during the period from August 22, 2012 (inception) to March 31, 2014. As of March 31, 2014, there was approximately $7,647,788 of unrecognized stock-based compensation expense related to nonvested RSUs. Assuming an initial public offering had occurred on March 31, 2014, $2,253,569 of this stock-based compensation expense would have been recognized in our statement of operations and comprehensive loss for the quarter ended March 31, 2014 and $5,394,219 would be recognized over the remaining service periods through 2018.

2014 Equity Incentive Plan

We adopted the 2014 Equity Incentive Plan on March 31, 2014 as part of the Recapitalization. In connection with the Recapitalization, Atara assumed the plans of Nina, Pinta and Santa Maria and all outstanding RSUs and restricted stock awards granted under such plans. At the time of settlement, each employee or consultant will receive one share of common stock of Atara for three shares in each of Nina, Pinta and Santa Maria (collectively, a nine-for-one exchange). At the date of Recapitalization, RSUs and restricted stock awards issued by Nina, Pinta and Santa Maria to Atara employees become employee awards and the awards' grant dates were established as the Recapitalization date. Under the terms of the 2014 Equity Incentive Plan, the aggregate number of awards available for issuance is 3,184,000 shares of common stock as of March 31, 2014. This aggregate amount includes the remaining shares that were previously available for issuance under the existing plans (1,682,231 shares of common stock, after giving effect to the nine-for-one exchange). There were no awards granted or vested under the 2014 Equity Incentive Plan during the quarter ended March 31, 2014.

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8. Income Taxes

The Company recorded the following income tax provision as follows:

	Period from August 22, 2012 (Inception) to December 31, 2012	Year Ended December 31, 2013	Period from August 22, 2012 (Inception) to December 31, 2013
		(in thousands)	
Current:			
Federal	$ 14	$ 153	$ 167
State	3	17	20
Total taxes	$ 17	$ 170	$ 187

A reconciliation of the statutory tax rates and the effective tax rates for the period from August 22, 2012 (inception) to December 31, 2012, the year ended December 2013 and the period from August 22, 2012 (inception) to December 31, 2013 is as follows:

	Period from August 22, 2012 (Inception) To December 31, 2012	Year Ended December 31, 2013	Period from August 22, 2012 (Inception) To December 31, 2013
Federal income taxes at statutory rate	34.0%	34.0%	34.0%
Nondeductible stock compensation	(1.4%)	(6.8%)	(5.1%)
State income tax, net of federal benefit	(0.1%)	(0.3%)	(0.2%)
Other	—	(0.1%)	(0.1%)
Valuation allowance	(32.9%)	(28.8%)	(30.1%)
Effective tax rate	(0.4%)	(2.0%)	(1.5%)

Deferred tax assets and liabilities reflect the net tax effect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. Significant components of our deferred tax assets and liabilities were as follows:

	December 31, 2012	December 31, 2013
	(in thousands)	
Deferred tax assets:		
Net operating losses	$ 325	$ 2,874
License fees	1,202	1,121
Legal fees	28	343
Other	21	140
Total deferred tax assets	1,576	4,478
Valuation allowance	(1,576)	(4,478)
Net deferred tax assets	$ —	$ —

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We recognize deferred income taxes for temporary differences between the basis of assets and liabilities for financial statement and income tax purposes. We periodically evaluate the positive and negative evidence bearing upon realizability of our deferred tax assets. Based upon the weight of available evidence, which includes our historical operating performance, reported cumulative net losses since inception and difficulty in accurately forecasting our future results, we maintained a full valuation allowance on the net deferred tax assets as of December 31, 2012 and 2013. We intend to maintain a full valuation allowance on the US deferred tax assets until sufficient positive evidence exists to support reversal of the valuation allowance. The valuation allowance increased by $1,576,000 and $2,902,000 for the period from August 22, 2012 (inception) to December 31, 2012 and the year ended December 31, 2013.

At December 31, 2012 and 2013, we had federal and state net operating loss carryforwards of approximately $816,000 and $7,220,000 respectively, which if not utilized begin to expire in various amounts beginning in the year 2032.

Under Section 382 of the Internal Revenue Code of 1986, as amended (the “Code”), our ability to utilize net operating loss carryforwards or other tax attributes, such as research tax credits, in any taxable year may be limited if we have experienced an “ownership change.” Generally, a Section 382 “ownership change” occurs if one or more stockholders or groups of stockholders who owns at least 5% of a corporation’s stock increases its ownership by more than 50 percentage points over its lowest ownership percentage within a specified testing period. Similar rules may apply under state tax laws. During 2014, we completed a Section 382 study of transactions in our stock through December 31, 2013.

The study concluded that we have experienced at least one ownership change since inception and that our utilization of net operating loss carryforwards will be subject to annual limitations. These results are reflected in the above carryforward amounts. Our ability to utilize our net operating loss carryforwards may be further limited as a result of subsequent ownership changes including potential changes in connection with or after our proposed initial public offering. Further, other provisions of the Code may limit our ability to utilize federal net operating losses incurred before the Recapitalization (as defined in Note 9 below) to offset income or gain realized after the Recapitalization unless such income or gain is realized by the same entity that originally incurred such losses. All such limitations could result in the expiration of carryforwards before they are utilized.

We file income tax returns in the US federal jurisdiction and California. Based on the statute of limitations, the US federal corporation income tax returns beginning with the 2012 tax year remain subject to examination by the Internal Revenue Service. Similarly, the California corporation income tax returns beginning with the 2012 tax year remain subject to examination by the California Franchise Tax Board.

We had no unrecognized tax benefits as of December 31, 2012 and 2013. Our policy is to recognize interest and penalties related to income taxes as a component of income tax expense. No interest and penalty expenses have been recognized in the combined statements of operations and comprehensive loss for the period from August 22 (inception) to December 31, 2012 and for the year ended December 31, 2013.

Shares

Common Stock

Goldman, Sachs & Co. **Citigroup**

Jefferies

Through and including , 2014 (the 25th day after the date of this prospectus), all dealers effecting transactions in these securities, whether or not participating in this offering, may be required to deliver a prospectus. This is in addition to a dealer's obligation to deliver a prospectus when acting as an underwriter and with respect to an unsold allotment or subscription.

PART II

Information Not Required in Prospectus

Item 13. Other Expenses of Issuance and Distribution

The following table sets forth the costs and expenses, other than the underwriting discounts and commissions, payable in connection with the sale and distribution of the securities being registered. All amounts are estimated except the SEC registration fee, the FINRA filing fee and the Nasdaq listing fee. Except as otherwise noted, all the expenses below will be paid by us.

SEC registration fee	$ 6,440
FINRA filing fee	8,000
Nasdaq initial listing fee	*
Legal fees and expenses	*
Accounting fees and expenses	*
Printing and engraving expenses	*
Transfer agent and registrar fees and expenses	*
Blue sky fees and expenses	*
Miscellaneous fees and expenses	*
Total	$ *

* To be completed by amendment.

Item 14. Indemnification of Directors and Officers

Section 145 of the Delaware General Corporation Law authorizes a court to award, or a corporation's board of directors to grant, indemnity to directors and officers in terms sufficiently broad to permit such indemnification under certain circumstances for liabilities, including reimbursement for expenses incurred, arising under the Securities Act of 1933, as amended. Our amended and restated certificate of incorporation to be in effect prior to the closing of this offering provides for indemnification of our directors, officers, employees and other agents to the maximum extent permitted by the Delaware General Corporation Law, and our amended and restated bylaws to be in effect prior to the closing of this offering provide for indemnification of our directors, officers, employees and other agents to the maximum extent permitted by the Delaware General Corporation Law.

We have entered into indemnification agreements with our directors and executive officers, whereby we have agreed to indemnify our directors and executive officers to the fullest extent permitted by law, including indemnification against expenses and liabilities incurred in legal proceedings to which the director or executive officer was, or is threatened to be made, a party by reason of the fact that such director or executive officer is or was our director, officer, employee or agent, provided that such director or executive officer acted in good faith and in a manner that the director or executive officer reasonably believed to be in, or not opposed to, the our best interest. At present, there is no pending litigation or proceeding involving any of our directors or executive officers regarding which indemnification is sought, nor are we aware of any threatened litigation that may result in claims for indemnification.

We maintain insurance policies that indemnify our directors and officers against various liabilities arising under the Securities Act of 1933, as amended, and the Securities Exchange Act of 1934, as amended, that might be incurred by any director or officer in his capacity as such.

The underwriters are obligated, under certain circumstances, pursuant to the underwriting agreement to be filed as Exhibit 1.1 hereto, to indemnify us, our officers and our directors against liabilities under the Securities Act of 1933, as amended.

Item 15. Recent Sales of Unregistered Securities.

The following sets forth information regarding all unregistered securities sold since the inception of the registrant in August 2012:

(a) We issued 1,200,000 shares of common stock for a price of $0.001 per share in August 2012 and March 2013 (which shares were contributed back to the capital of the company in connection with the recapitalization described in the prospectus forming part of this registration statement);

(b) We issued 2,735,999 shares of common stock and 15,988,087 shares of preferred stock to the stockholders of Nina Biotherapeutics, Inc., Pinta Biotherapeutics, Inc. and Santa Maria Biotherapeutics, Inc. in such recapitalization, at a rate of one share of common stock or preferred stock of the company, respectively, for one share of common stock and preferred stock, respectively, of each of Nina Biotherapeutics, Inc., Pinta Biotherapeutics, Inc. and Santa Maria Biotherapeutics, Inc.; and

(c) We issued RSUs for 1,151,770 shares of common stock to our employees, directors and consultants. All of such RSUs remain outstanding.

The offers, sales and issuances of the securities described in Item 15(a) were deemed to be exempt from registration under the Securities Act under either (1) Rule 701 promulgated under the Securities Act as offers and sale of securities pursuant to certain compensatory benefit plans and contracts relating to compensation in compliance with Rule 701 or (2) Section 4(2) of the Securities Act as transactions by an issuer not involving any public offering. The recipients of securities in each of these transactions represented their intention to acquire the securities for investment only and not with view to or for sale in connection with any distribution thereof and appropriate legends were affixed to the stock certificates and instruments issued in such transactions.

Item 16. Exhibits and Financial Statement Schedules.

(a) Exhibits.

Exhibit No.	Description of Exhibit
1.1*	Form of Underwriting Agreement.
3.1	Amended and Restated Certificate of Incorporation of Atara Biotherapeutics, Inc., as currently in effect.
3.2	Form of Amended and Restated Certificate of Incorporation of Atara Biotherapeutics, Inc., to be in effect upon closing of this offering.
3.3	Amended and Restated Bylaws of Atara Biotherapeutics, Inc., as currently in effect.
3.4	Form of Amended and Restated Bylaws of Atara Biotherapeutics, Inc., to be in effect upon closing of this offering.
4.1*	Form of common stock certificate.
4.2	Investor Rights Agreement, by and among Atara Biotherapeutics, Inc. and the stockholders named therein, dated March 31, 2014.
5.1*	Form of Opinion of Cooley LLP.
10.1	2014 Equity Incentive Plan.
10.2	Forms of Option Agreement and Option Grant Notice under the 2014 Equity Incentive Plan.
10.3	Form of Restricted Stock Unit Agreement and Restricted Stock Unit Grant Notice under the 2014 Equity Incentive Plan.

Exhibit No.	Description of Exhibit
10.4	Nina Biotherapeutics, Inc. 2012 Equity Incentive Plan.
10.5	Pinta Biotherapeutics, Inc. 2012 Equity Incentive Plan.
10.6	Santa Maria Biotherapeutics, Inc. 2012 Equity Incentive Plan.
10.7	Form of Stock Unit Agreement under the Nina Biotherapeutics, Inc. 2012 Equity Incentive Plan, Pinta Biotherapeutics, Inc. 2012 Equity Incentive Plan and Santa Maria Biotherapeutics, Inc. 2012 Equity Incentive Plan.
10.8	2014 Employee Stock Purchase Plan, to be in effect upon closing of this offering.
10.9	Form of Indemnification Agreement made by and between Atara Biotherapeutics, Inc. and each of its directors and executive officers.
10.10	Amended and restated offer letter agreement between Atara Biotherapeutics, Inc. and Isaac E. Ciechanover, dated March 31, 2014.
10.11	Amended and restated offer letter agreement between Atara Biotherapeutics, Inc. and Christopher Haqq, dated March 31, 2014.
10.12	Amended and restated offer letter agreement between Atara Biotherapeutics, Inc. and John F. McGrath, Jr., dated March 31, 2014.
10.13	Amended and restated offer letter agreement between Atara Biotherapeutics, Inc. and Mitchall G. Clark, dated March 31, 2014.
10.14	Amended and restated offer letter agreement between Atara Biotherapeutics, Inc. and Gad Soffer, dated March 31, 2014.
10.15†	Exclusive License Agreement, by and between Amgen Inc. and Nina Biotherapeutics, Inc., dated as of September 7, 2012.
10.16†	Amendment No. 1 To Exclusive License Agreement, by and between Amgen Inc. and Nina Biotherapeutics, Inc., dated as of October 22, 2012.
10.17†	Amendment No. 2 To Exclusive License Agreement, by and between Amgen Inc. and Nina Biotherapeutics, Inc., dated as of September 7, 2012.
10.18†	Exclusive License Agreement, by and between Amgen Inc. and Pinta Biotherapeutics, Inc., dated as of September 7, 2012.
10.19†	Amendment No. 1 To Exclusive License Agreement, by and between Amgen Inc. and Pinta Biotherapeutics, Inc., dated as of October 22, 2012.
10.20†	Amendment No. 2 To Exclusive License Agreement, by and between Amgen Inc. and Pinta Biotherapeutics, Inc., dated as of June 28, 2013.
10.21†	Exclusive License Agreement, by and between Amgen Inc. and Santa Maria Biotherapeutics, Inc., dated as of September 7, 2012.
10.22†	Amendment No. 1 To Exclusive License Agreement, by and between Amgen Inc. and Santa Maria Biotherapeutics, Inc., dated as of October 22, 2012.
10.23†	Amendment No. 2 To Exclusive License Agreement, by and between Amgen Inc. and Santa Maria Biotherapeutics, Inc., dated as of July 29, 2013.
10.24†	Amendment No. 3 To Exclusive License Agreement, by and between Amgen Inc. and Santa Maria Biotherapeutics, Inc., dated as of April 4, 2014.
10.25	Office Lease, by and between Atara Biotherapeutics, Inc. and Freeway Properties III, dated as of August 12, 2013.
10.26	Sublease, by and between Atara Biotherapeutics, Inc. and XDX, Inc., dated as of January 10, 2013.

Exhibit No.	Description of Exhibit
10.27	Consent to Sublease, by and among Atara Biotherapeutics, Inc., XDX, Inc. and BMR-Bayshore Boulevard LLC, dated as of January 14, 2013.
21.1	List of subsidiaries.
23.1*	Consent of Cooley LLP (included in Exhibit 5.1).
23.2	Consent of Deloitte & Touche LLP, independent registered public accounting firm.
24.1	Power of Attorney (see page II-5 to this registration statement).

* To be filed by amendment.
† The registrant has requested confidential treatment for a portion of this exhibit.

(b) Financial statement schedules.

All schedules have been omitted because the information required to be presented in them is not applicable or is shown in the combined and consolidated financial statements or related notes.

Item 17. Undertakings

The undersigned Registrant hereby undertakes to provide to the underwriters at the closing specified in the Underwriting Agreement, certificates in such denominations and registered in such names as required by the underwriters to permit prompt delivery to each purchaser.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

The undersigned Registrant hereby undertakes that:

(1) For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this Registration Statement in reliance upon Rule 430A and contained in a form of prospectus filed by the Registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this Registration Statement as of the time it was declared effective.

(2) For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, we have duly caused this Registration Statement on Form S-1 to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Brisbane, State of California, on the 20th day of June, 2014.

ATARA BIOTHERAPEUTICS, INC.

By: /s/ Isaac E. Ciechanover
Isaac E. Ciechanover
Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Isaac E. Ciechanover and John F. McGrath, Jr., and each of them, as his or her true and lawful attorneys-in-fact and agents, each with the full power of substitution, for him or her and in his or her name, place or stead, in any and all capacities, to sign any and all amendments to this Registration Statement (including post-effective amendments), and to sign any registration statement for the same offering covered by this Registration Statement that is to be effective upon filing pursuant to Rule 462(b) promulgated under the Securities Act, and all post-effective amendments thereto, and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or their, his or her substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Isaac E. Ciechanover Isaac E. Ciechanover, M.D.	President and Chief Executive Officer *(principal executive officer)*	June 20, 2014
/s/ John F. McGrath, Jr. John F. McGrath, Jr.	Chief Financial Officer *(principal financial and accounting officer)*	June 20, 2014
/s/ Matthew K. Fust Matthew K. Fust	Director	June 20, 2014
/s/ Carol Gallagher Carol Gallagher, Pharm.D.	Director	June 20, 2014
/s/ Joel S. Marcus Joel S. Marcus	Director	June 20, 2014
/s/ Beth Seidenberg Beth Seidenberg, M.D.	Director	June 20, 2014
/s/ Eckard Weber Eckard Weber, M.D.	Director	June 20, 2014

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10.5	Pinta Biotherapeutics, Inc. 2012 Equity Incentive Plan.
10.6	Santa Maria Biotherapeutics, Inc. 2012 Equity Incentive Plan.
10.7	Form of Stock Unit Agreement under the Nina Biotherapeutics, Inc. 2012 Equity Incentive Plan, Pinta Biotherapeutics, Inc. 2012 Equity Incentive Plan and Santa Maria Biotherapeutics, Inc. 2012 Equity Incentive Plan.
10.8	2014 Employee Stock Purchase Plan, to be in effect upon closing of this offering.
10.9	Form of Indemnification Agreement made by and between Atara Biotherapeutics, Inc. and each of its directors and executive officers.
10.10	Amended and restated offer letter agreement between Atara Biotherapeutics, Inc. and Isaac E. Ciechanover, dated March 31, 2014.
10.11	Amended and restated offer letter agreement between Atara Biotherapeutics, Inc. and Christopher Haqq, dated March 31, 2014.
10.12	Amended and restated offer letter agreement between Atara Biotherapeutics, Inc. and John F. McGrath, Jr., dated March 31, 2014.
10.13	Amended and restated offer letter agreement between Atara Biotherapeutics, Inc. and Mitchall G. Clark, dated March 31, 2014.
10.14	Amended and restated offer letter agreement between Atara Biotherapeutics, Inc. and Gad Soffer, dated March 31, 2014.
10.15†	Exclusive License Agreement, by and between Amgen Inc. and Nina Biotherapeutics, Inc., dated as of September 7, 2012.

Exhibit No.	Description of Exhibit
10.16†	Amendment No. 1 To Exclusive License Agreement, by and between Amgen Inc. and Nina Biotherapeutics, Inc., dated as of October 22, 2012.
10.17†	Amendment No. 2 To Exclusive License Agreement, by and between Amgen Inc. and Nina Biotherapeutics, Inc., dated as of September 7, 2012.
10.18†	Exclusive License Agreement, by and between Amgen Inc. and Pinta Biotherapeutics, Inc., dated as of September 7, 2012.
10.19†	Amendment No. 1 To Exclusive License Agreement, by and between Amgen Inc. and Pinta Biotherapeutics, Inc., dated as of October 22, 2012.
10.20†	Amendment No. 2 To Exclusive License Agreement, by and between Amgen Inc. and Pinta Biotherapeutics, Inc., dated as of June 28, 2013.
10.21†	Exclusive License Agreement, by and between Amgen Inc. and Santa Maria Biotherapeutics, Inc., dated as of September 7, 2012.
10.22†	Amendment No. 1 To Exclusive License Agreement, by and between Amgen Inc. and Santa Maria Biotherapeutics, Inc., dated as of October 22, 2012.
10.23†	Amendment No. 2 To Exclusive License Agreement, by and between Amgen Inc. and Santa Maria Biotherapeutics, Inc., dated as of July 29, 2013.
10.24†	Amendment No. 3 To Exclusive License Agreement, by and between Amgen Inc. and Santa Maria Biotherapeutics, Inc., dated as of April 4, 2014.
10.25	Office Lease, by and between Atara Biotherapeutics, Inc. and Freeway Properties III, dated as of August 12, 2013.
10.26	Sublease, by and between Atara Biotherapeutics, Inc. and XDX, Inc., dated as of January 10, 2013.
10.27	Consent to Sublease, by and among Atara Biotherapeutics, Inc., XDX, Inc. and BMR-Bayshore Boulevard LLC, dated as of January 14, 2013.
21.1	List of subsidiaries.
23.1*	Consent of Cooley LLP (included in Exhibit 5.1).
23.2	Consent of Deloitte & Touche LLP, independent registered public accounting firm.
24.1	Power of Attorney (see page II-5 to this registration statement).

* To be filed by amendment.
† The registrant has requested confidential treatment for a portion of this exhibit.

RESTATED CERTIFICATE OF INCORPORATION OF ATARA BIOTHERAPEUTICS, INC.

(Pursuant to Sections 242 and 245 of the General Corporation Law of the State of Delaware)

Atara Biotherapeutics, Inc., a corporation organized and existing under and by virtue of the provisions of the General Corporation Law of the State of Delaware (the "**General Corporation Law**"),

DOES HEREBY CERTIFY:

FIRST: That the name of this corporation is Atara Biotherapeutics, Inc. and that this corporation was originally incorporated pursuant to the General Corporation Law on August 22, 2012 under the name Atara, Inc.

SECOND: That the Board of Directors of this corporation duly adopted resolutions proposing to amend and restate the certificate of incorporation of this corporation, as amended, declaring said amendment and restatement to be advisable and in the best interests of this corporation and its stockholders, and authorizing the appropriate officers of this corporation to solicit the consent of the stockholders therefor, which resolution setting forth the proposed amendment and restatement is as follows:

RESOLVED, that the certificate of incorporation of this corporation, as amended, be amended and restated in its entirety as follows:

ARTICLE I

The name of this corporation is Atara Biotherapeutics, Inc.

ARTICLE II

The address of the registered office of this corporation in the State of Delaware is 3500 South DuPont Highway, in the City of Dover, County of Kent, 19901. The name of its registered agent at such address is Incorporating Services, Ltd.

ARTICLE III

The nature of the business or purposes to be conducted or promoted is to engage in any lawful act or activity for which corporations may be organized under the General Corporation Law.

ARTICLE IV

A. Authorization of Stock. This corporation is authorized to issue two classes of stock to be designated, respectively, common stock and preferred stock. The total number of shares that this corporation is authorized to issue is Thirty-Nine Million Three Hundred Twenty-One Thousand Four Hundred Twenty (39,321,420). The total number of shares of common stock authorized to be issued is Twenty Three Million Three Hundred Thirty-Three Thousand Three Hundred Thirty-Three (23,333,333), par value $0.0001 per share (the "**Common Stock**"). The total number of shares of preferred stock authorized to be issued is Fifteen Million Nine Hundred Eighty-Eight Thousand Eighty-Seven (15,988,087), par value $0.0001 per share (the "**Preferred Stock**"), of which Eight Million Four Hundred Ninety-Two Thousand One Hundred Seventy-Four (8,492,174) shares are designated as "**Series B Preferred Stock**", Eight Hundred Thousand (800,000) shares are designated as "**Series A-1 Preferred Stock**" and Six Million Six Hundred Ninety-Five Thousand Nine Hundred Thirteen (6,695,913) shares are designated as "**Series A Preferred Stock**".[1]

B. Rights, Preferences and Restrictions of Preferred Stock. The rights, preferences, privileges and restrictions granted to and imposed on the Preferred Stock are as set forth below in this Article IV(B).

1. Dividend Provisions.

(a) The holders of shares of Preferred Stock shall be entitled to receive dividends, out of any assets legally available therefor, prior and in preference to any declaration or payment of any dividend (payable other than in Common Stock or other securities and rights convertible into or entitling the holder thereof to receive, directly or indirectly, additional shares of Common Stock) on the Common Stock of this corporation, at the applicable Dividend Rate (as defined below), payable when, as and if declared by the Board of Directors of this corporation (the "**Board of Directors**"). Such dividends shall not be cumulative. "**Dividend Rate**" shall mean 8% per annum of the applicable Price (as defined below) for each share of Series B Preferred Stock, 8% per annum of the applicable Price for each share of Series A Preferred Stock and an equivalent per share rate for each share of Series A-1 Preferred Stock (in each case, as adjusted for any stock splits, stock dividends, combinations, subdivisions, recapitalizations or the like).

(b) After payment of such dividends, any additional dividends or distributions shall be distributed among all holders of Common Stock and Preferred Stock in proportion to the number of shares of Common Stock that would be held by each such holder if all shares of Preferred Stock were converted to Common Stock at the then effective Conversion Rate (as defined herein).

2. Liquidation Preference.

(a) In the event of any Liquidation Event (as defined below), either voluntary or involuntary:

(i) the holders of outstanding shares of Series B Preferred Stock shall be entitled to receive out of the proceeds or assets of this corporation available for distribution to its stockholders (the "**Proceeds**"), prior and in preference to any distribution of

[1] These numbers reflect the proposed 3:1 reverse split.

the Proceeds of such Liquidation Event to the holders of Series A Preferred Stock, Series A-1 Preferred Stock or Common Stock by reason of their ownership thereof, an amount per share equal to the sum of the applicable Price for such share of Series B Preferred Stock, plus declared but unpaid dividends on such share. If, upon the occurrence of such event, the Proceeds thus distributed among the holders of the Series B Preferred Stock shall be insufficient to permit the payment to such holders of the full aforesaid preferential amount, then the entire Proceeds legally available for distribution shall be distributed ratably among the holders of the Series B Preferred Stock in proportion to the full preferential amount that each such holder is otherwise entitled to receive pursuant to this subsection (a)(i); and

(ii) upon completion of the distribution required by subsection (a)(i) of this Section 2, the holders of the Series A Preferred Stock and Series A-1 Preferred Stock shall be entitled to receive, on a pari passu basis and prior and in preference to any distribution of any of the assets of this corporation to the holders of the Common Stock by reason of their ownership thereof, (A) for the holders of Series A Preferred Stock, an amount per share equal to the sum of the applicable Price for such share of Series A Preferred Stock, plus declared but unpaid dividends on such share, and (B) for the holders of Series A-1 Preferred Stock, an amount per share equal to $3,000,000 divided by the total number of outstanding shares of Series A-1 Preferred Stock as of the date of the Liquidation Event, plus declared but unpaid dividends on such share of Series A-1 Preferred Stock. If, upon the occurrence of such Liquidation Event, the Proceeds thus distributed among the holders of the Series A Preferred Stock and Series A-1 Preferred Stock shall be insufficient to permit the payment to such holders of the full aforesaid preferential amounts, then the entire remaining Proceeds legally available for distribution shall be distributed ratably among the holders of the Series A Preferred Stock and Series A-1 Preferred Stock in proportion to the full preferential amount that each such holder is otherwise entitled to receive under this subsection (a)(ii).

(b) Upon completion of the distributions required by subsections (a)(i) and (a)(ii) of this Section 2, all of the remaining Proceeds available for distribution to stockholders shall be distributed among the holders of Common Stock pro rata based on the number of shares of Common Stock held by each.

(c) For purposes of this Restated Certificate of Incorporation, "**Price**" shall mean (i) for the Series B Preferred Stock, $6.1233 per share (as adjusted for any stock splits, stock dividends, combinations, subdivisions, recapitalizations or the like), (ii) for the Series A Preferred Stock, $3.00 per share (as adjusted for any stock splits, stock dividends, combinations, subdivisions, recapitalizations or the like) and (iii) for the Series A-1 Preferred Stock, an amount per share that equals $3,000,000 divided by the total number of outstanding shares of Series A-1 Preferred Stock as of the date of the Liquidation Event.

(d) Notwithstanding the above, for purposes of determining the amount each holder of shares of Preferred Stock is entitled to receive with respect to a Liquidation Event, each such holder of shares of a series of Preferred Stock shall be deemed to have converted (regardless of whether such holder actually converted) such holder's shares of such series into shares of Common Stock immediately prior to the Liquidation Event if, as a result of an actual conversion, such holder would receive, in the aggregate, an amount greater than the amount that would be distributed to such holder if such holder did not convert such

series of Preferred Stock into shares of Common Stock. If any such holder shall be deemed to have converted shares of Preferred Stock into Common Stock pursuant to this paragraph, then such holder shall not be entitled to receive any distribution that would otherwise be made to holders of Preferred Stock that have not converted (or have not been deemed to have converted) into shares of Common Stock.

(e) (i) For purposes of this Section 2, a "**Liquidation Event**" shall include (A) the closing of the sale, transfer or other disposition of all or substantially all of this corporation's assets or a worldwide exclusive license of all or substantially all of the intellectual property of this corporation in all or substantially all fields of use, (B) the consummation of the merger or consolidation of this corporation with or into another entity (except a merger or consolidation in which the holders of capital stock of this corporation immediately prior to such merger or consolidation continue to hold at least 50% of the voting power of the capital stock of this corporation or the surviving or acquiring entity), (C) the closing of the transfer (whether by merger, consolidation or otherwise), in one transaction or a series of related transactions, to a person or group of affiliated persons (other than an underwriter of this corporation's securities), of this corporation's securities if, after such closing, such person or group of affiliated persons would hold 50% or more of the outstanding voting stock of this corporation (or the surviving or acquiring entity) or (D) a liquidation, dissolution or winding up of this corporation; provided, however, that a transaction shall not constitute a Liquidation Event if its sole purpose is to change the state of this corporation's incorporation or to create a holding company that will be owned in substantially the same proportions by the persons who held this corporation's securities immediately prior to such transaction. Notwithstanding the prior sentence, the issuance by this corporation of shares of Common Stock and Preferred Stock pursuant to that certain Share Exchange Agreement of the corporation dated on or about the Filing Date (as defined below) shall not be deemed a "Liquidation Event." The treatment of any particular transaction or series of related transactions as a Liquidation Event may be waived by the vote or written consent of the holders of a majority of the outstanding Preferred Stock (voting together as a single class and not as separate series, and on an as-converted basis).

(ii) In any Liquidation Event, if the Proceeds received by this corporation or its stockholders is other than cash, its value will be deemed its fair market value. Any securities shall be valued as follows:

(A) Securities not subject to investment letter or other similar restrictions on free marketability (which are covered by (B) below):

(1) If traded on a securities exchange, the value shall be deemed to be the average of the closing prices of the securities on such exchange over the twenty (20) trading-day period ending three (3) trading days prior to the closing of the Liquidation Event;

(2) If actively traded over-the-counter, the value shall be deemed to be the average of the closing bid or sale prices (whichever is applicable) over the twenty (20) trading-day period ending three (3) trading days prior to the closing of the Liquidation Event; and

(3) If there is no active public market, the value shall be the fair market value thereof, as mutually determined by this corporation and the holders of a majority of the voting power of all then outstanding shares of Preferred Stock (voting together as a single class and not as separate series and on an as-converted basis).

(B) The method of valuation of securities subject to investment letter or other restrictions on free marketability (other than restrictions arising solely by virtue of a stockholder's status as an affiliate or former affiliate) shall be to make an appropriate discount from the market value determined as above in (A) (1), (2) or (3) to reflect the approximate fair market value thereof, as mutually determined by this corporation and the holders of a majority of the voting power of all then outstanding shares of such Preferred Stock (voting together as a single class and not as separate series and on an as-converted basis).

(C) The foregoing methods for valuing non-cash consideration to be distributed in connection with a Liquidation Event shall, with the appropriate approval of the definitive agreements governing such Liquidation Event by the stockholders under the General Corporation Law and Section 6 of this Article IV(B), be superseded by the determination of such value set forth in the definitive agreements governing such Liquidation Event.

(iii) In the event the requirements of this Section 2 are not complied with, this corporation shall forthwith either:

(A) cause the closing of such Liquidation Event to be postponed until such time as the requirements of this Section 2 have been complied with; or

(B) cancel such transaction, in which event the rights, preferences and privileges of the holders of the Preferred Stock shall revert to and be the same as such rights, preferences and privileges existing immediately prior to the date of the first notice referred to in subsection 2(d)(iv) hereof.

(iv) This corporation shall give each holder of record of Preferred Stock written notice of such impending Liquidation Event not later than twenty (20) days prior to the stockholders' meeting called to approve such transaction, or twenty (20) days prior to the closing of such transaction, whichever is earlier, and shall also notify such holders in writing of the final approval of such transaction. The first of such notices shall describe the material terms and conditions of the impending transaction and the provisions of this Section 2, and this corporation shall thereafter give such holders prompt notice of any material changes to such transaction. The transaction shall in no event take place sooner than twenty (20) days after this corporation has given the first notice provided for herein or sooner than ten (10) days after this corporation has given notice of any material changes provided for herein; provided, however, that subject to compliance with the General Corporation Law such periods may be shortened or waived upon the written consent of the holders of Preferred Stock that represent a majority of the voting power of all then outstanding shares of such Preferred Stock (voting together as a single class and not as separate series, and on an as-converted basis).

(f) Allocation of Contingent Consideration. In the event of a deemed Liquidation Event pursuant to subsection 2(e)(i), if any portion of the consideration payable to the stockholders of this corporation is placed into escrow and/or is payable to the stockholders of this corporation subject to contingencies, the definitive agreement with respect to such deemed Liquidation Event shall provide that (a) the portion of such consideration that is not placed in escrow and not subject to any contingencies (the "**Initial Consideration**") shall be allocated among the holders of capital stock of this corporation in accordance with subsections 2(a), 2(b) and 2(c) as if the Initial Consideration were the only consideration payable in connection with such deemed Liquidation Event and (b) any additional consideration that becomes payable to the stockholders of this corporation upon release from escrow or satisfaction of contingencies shall be allocated among the holders of capital stock of this corporation in accordance with subsections 2(a), 2(b) and 2(c) after taking into account the previous payment of the Initial Consideration as part of the same transaction.

3. Redemption. The Preferred Stock is not redeemable at the option of the holder thereof.

4. Conversion. The holders of the Preferred Stock shall have conversion rights as follows (the "**Conversion Rights**"):

(a) Right to Convert. Each share of Preferred Stock shall be convertible, at the option of the holder thereof, at any time after the date of issuance of such share, at the office of this corporation or any transfer agent for such stock, into such number of fully paid and nonassessable shares of Common Stock as is determined by dividing the applicable Price for such series by the applicable Conversion Price for such series (the conversion rate for a series of Preferred Stock into Common Stock is referred to herein as the "**Conversion Rate**" for such series), determined as hereafter provided, in effect on the date the certificate is surrendered for conversion. The initial "**Conversion Price**" per share for each series of Preferred Stock shall be the Price applicable to such series; provided, however, that the Conversion Price for the Preferred Stock shall be subject to adjustment as set forth in subsection 4(d).

(b) Automatic Conversion. Each share of Preferred Stock shall automatically be converted into shares of Common Stock at the applicable Conversion Rate at the time in effect for such series of Preferred Stock immediately upon the earlier of (i) the closing of this corporation's sale of its Common Stock in a firm commitment underwritten public offering pursuant to a registration statement on Form S-1 under the Securities Act of 1933, as amended, the public offering price of which was not less than 1.6 times (1.6x) the Price per share of the Series B Preferred Stock (as adjusted for any stock splits, stock dividends, combinations, subdivisions, recapitalizations or the like) and the gross proceeds to this corporation (before underwriting discounts and commissions) are at least Thirty Million Dollars ($30,000,000) (such an offering, a "**Qualified Public Offering**") or (ii) the date, or the occurrence of an event, specified by vote or written consent or agreement of the holders of a majority of the then outstanding shares of Preferred Stock (voting together as a single class and not as separate series, and on an as-converted basis).

(c) Mechanics of Conversion. Before any holder of Preferred Stock shall be entitled to voluntarily convert the same into shares of Common Stock, such holder shall surrender the certificate or certificates therefor, duly endorsed, at the office of this corporation or of any transfer agent for the Preferred Stock, and shall give written notice to this corporation at its principal corporate office, of the election to convert the same and shall state therein the name or names in which the certificate or certificates for shares of Common Stock are to be issued. This corporation shall, as soon as practicable thereafter, issue and deliver at such office to such holder of Preferred Stock, or to the nominee or nominees of such holder, a certificate or certificates for the number of shares of Common Stock to which such holder shall be entitled as aforesaid. Such conversion shall be deemed to have been made immediately prior to the close of business on the date set forth for conversion in the written notice of the election to convert irrespective of the surrender of the shares of Preferred Stock to be converted, and the person or persons entitled to receive the shares of Common Stock issuable upon such conversion shall be treated for all purposes as the record holder or holders of such shares of Common Stock as of such date. If the conversion is in connection with an underwritten offering of securities registered pursuant to the Securities Act of 1933, as amended, the conversion may, at the option of any holder tendering Preferred Stock for conversion, be conditioned upon the closing with the underwriters of the sale of securities pursuant to such offering, in which event the persons entitled to receive the Common Stock upon conversion of the Preferred Stock shall not be deemed to have converted such Preferred Stock until immediately prior to the closing of such sale of securities. If the conversion is in connection with the automatic conversion provisions of subsection 4(b)(ii) above, such conversion shall be deemed to have been made on the conversion date described in the stockholder consent approving such conversion, and the persons entitled to receive shares of Common Stock issuable upon such conversion shall be treated for all purposes as the record holders of such shares of Common Stock as of such date.

(d) Conversion Price Adjustments of Preferred Stock for Certain Dilutive Issuances, Splits and Combinations. The Conversion Price of the Preferred Stock shall be subject to adjustment from time to time as follows:

(i) (A) If this corporation shall issue, on or after the date upon which this Restated Certificate of Incorporation is accepted for filing by the Secretary of State of the State of Delaware (the "**Filing Date**"), any Additional Stock (as defined below) without consideration or for a consideration per share less than (1) in the case of the Series B Preferred Stock, the Conversion Price applicable to the Series B Preferred Stock in effect immediately prior to the issuance of such Additional Stock or (2) in the case of the Series A Preferred Stock and the Series A-1 Preferred Stock, the Conversion Price applicable to the Series A Preferred Stock in effect immediately prior to the issuance of such Additional Stock, then the Conversion Price of each such series of Preferred Stock, as applicable, in effect immediately prior to each such issuance shall forthwith (except as otherwise provided in this clause (i)) be adjusted to a price (calculated to the nearest one-hundredth of a cent) determined by multiplying the then current Conversion Price for such series, as applicable, by a fraction, the numerator of which shall be the number of shares of Common Stock Outstanding (as defined below) immediately prior to such issuance plus the number of shares of Common Stock that the aggregate consideration received by this corporation for such issuance would purchase at the relevant Conversion Price; and the denominator of which shall be the number of shares of Common Stock Outstanding (as defined below) immediately prior to such issuance plus the number of shares of such Additional Stock. For purposes of this Section 4(d)(i)(A), the term "Common Stock Outstanding" shall mean and include the following: (1) outstanding Common Stock, (2)

Common Stock issuable upon conversion of outstanding Preferred Stock, (3) Common Stock issuable upon exercise of outstanding stock options and upon settlement of all outstanding restricted stock units and (4) Common Stock issuable upon exercise (and, in the case of warrants to purchase Preferred Stock, conversion) of outstanding warrants. Shares described in (1) through (4) above shall be included whether vested or unvested, whether contingent or non-contingent and whether exercisable or not yet exercisable.

(B) No adjustment of the Conversion Price for the Preferred Stock shall be made in an amount less than one-tenth of one cent per share. Except to the limited extent provided for in subsections (E)(3) and (E)(4), no adjustment of such Conversion Price pursuant to this subsection 4(d)(i) shall have the effect of increasing the Conversion Price above the Conversion Price in effect immediately prior to such adjustment.

(C) In the case of the issuance of Additional Stock for cash, the consideration shall be deemed to be the amount of cash paid therefor before deducting any reasonable discounts, commissions or other expenses allowed, paid or incurred by this corporation for any underwriting or otherwise in connection with the issuance and sale thereof.

(D) In the case of the issuance of the Additional Stock for a consideration in whole or in part other than cash, the consideration other than cash shall be deemed to be the fair market value thereof as determined by the Board of Directors irrespective of any accounting treatment.

(E) In the case of the issuance of options to purchase or rights to subscribe for Common Stock, securities by their terms convertible into or exchangeable for Common Stock or options to purchase or rights to subscribe for such convertible or exchangeable securities, the following provisions shall apply for purposes of determining the number of shares of Additional Stock issued and the consideration paid therefor:

(1) The aggregate maximum number of shares of Common Stock deliverable upon exercise (assuming the satisfaction of any conditions to exercisability, including without limitation, the passage of time, but without taking into account potential antidilution adjustments) of such options to purchase or rights to subscribe for Common Stock shall be deemed to have been issued at the time such options or rights were issued and for a consideration equal to the consideration (determined in the manner provided in subsections 4(d)(i)(C) and (d)(i)(D)), if any, received by this corporation upon the issuance of such options or rights plus the minimum exercise price provided in such options or rights (without taking into account potential antidilution adjustments) for the Common Stock covered thereby.

(2) The aggregate maximum number of shares of Common Stock deliverable upon conversion of, or in exchange (assuming the satisfaction of any conditions to convertibility or exchangeability, including, without limitation, the passage of time, but without taking into account potential antidilution adjustments) for, any such convertible or exchangeable securities or upon the exercise of options to purchase or rights to subscribe for such convertible or exchangeable securities and subsequent conversion or exchange thereof shall be deemed to have been issued at the time such securities were issued or such options or rights were issued and for a consideration equal to the consideration, if any, received by this

corporation for any such securities and related options or rights (excluding any cash received on account of accrued interest or accrued dividends), plus the minimum additional consideration, if any, to be received by this corporation (without taking into account potential antidilution adjustments) upon the conversion or exchange of such securities or the exercise of any related options or rights (the consideration in each case to be determined in the manner provided in subsections 4(d)(i)(C) and (d)(i)(D)).

(3) In the event of any change in the number of shares of Common Stock deliverable or in the consideration payable to this corporation upon exercise of such options or rights or upon conversion of or in exchange for such convertible or exchangeable securities, the Conversion Price of the Preferred Stock, to the extent in any way affected by or computed using such options, rights or securities, shall be recomputed to reflect such change, but no further adjustment shall be made for the actual issuance of Common Stock or any payment of such consideration upon the exercise of any such options or rights or the conversion or exchange of such securities.

(4) Upon the expiration of any such options or rights, the termination of any such rights to convert or exchange or the expiration of any options or rights related to such convertible or exchangeable securities, the Conversion Price of the Preferred Stock, to the extent in any way affected by or computed using such options, rights or securities or options or rights related to such securities, shall be recomputed to reflect the issuance of only the number of shares of Common Stock (and convertible or exchangeable securities that remain in effect) actually issued upon the exercise of such options or rights, upon the conversion or exchange of such securities or upon the exercise of the options or rights related to such securities.

(5) The number of shares of Additional Stock deemed issued and the consideration deemed paid therefor pursuant to subsections 4(d)(i)(E)(1) and (2) shall be appropriately adjusted to reflect any change, termination or expiration of the type described in either subsection 4(d)(i)(E)(3) or (4).

(ii) "Additional Stock" shall mean any shares of Common Stock issued (or deemed to have been issued pursuant to subsection 4(d)(i)(E)) by this corporation on or after the Filing Date other than:

(A) Common Stock issued pursuant to a transaction described in subsection 4(d)(iii) hereof;

(B) Shares of Common Stock issued to employees, directors, consultants and other service providers for the primary purpose of soliciting or retaining their services pursuant to plans or agreements approved by the Board of Directors;

(C) Common Stock issued pursuant to a Qualified Public Offering;

(D) Common Stock issued pursuant to the conversion or exercise of convertible or exercisable securities outstanding on the Filing Date;

(E) Common Stock issued in connection with a bona fide business acquisition by this corporation, whether by merger, consolidation, sale of assets, sale or exchange of stock or otherwise;

(F) Common Stock issued or deemed issued pursuant to subsection 4(d)(i)(E) as a result of a decrease in the Conversion Price of any series of Preferred Stock resulting from the operation of Section 4(d);

(G) Common Stock issued upon conversion of the Series A Preferred Stock, Series A-1 Preferred Stock and Series B Preferred Stock;

(H) Shares of Common Stock issued pursuant to any equipment leasing arrangement or debt financing arrangement, which arrangement is approved by the Board of Directors and is primarily for non-equity financing purposes;

(I) Common Stock issued to persons or entities with which this corporation has business relationships, provided such issuances are approved by the Board of Directors and are primarily for non-equity financing purposes; or

(J) Common Stock that is issued with the approval of (i) the Board of Directors acting unanimously and (ii) the holders of a majority of the then outstanding shares of Preferred Stock (voting together as a single class and not as separate series, and on an as-converted basis), in both cases specifically stating such issuance(s) shall not be Additional Stock.

(iii) In the event this corporation should at any time or from time to time after the Filing Date fix a record date for the effectuation of a split or subdivision of the outstanding shares of Common Stock or the determination of holders of Common Stock entitled to receive a dividend or other distribution payable in additional shares of Common Stock or other securities or rights convertible into, or entitling the holder thereof to receive directly or indirectly, additional shares of Common Stock (hereinafter referred to as "**Common Stock Equivalents**") without payment of any consideration by such holder for the additional shares of Common Stock or the Common Stock Equivalents (including the additional shares of Common Stock issuable upon conversion or exercise thereof), then, as of such record date (or the date of such dividend distribution, split or subdivision if no record date is fixed), the Conversion Price of the Preferred Stock shall be appropriately decreased so that the number of shares of Common Stock issuable on conversion of each share of such series shall be increased in proportion to such increase of the aggregate of shares of Common Stock outstanding and those issuable with respect to such Common Stock Equivalents with the number of shares issuable with respect to Common Stock Equivalents determined from time to time in the manner provided for deemed issuances in subsection 4(d)(i)(E).

(iv) If the number of shares of Common Stock outstanding at any time after the Filing Date is decreased by a combination of the outstanding shares of Common Stock, then, following the record date of such combination, the Conversion Price for the Preferred Stock shall be appropriately increased so that the number of shares of Common Stock issuable on conversion of each share of such series shall be decreased in proportion to such decrease in outstanding shares.

(e) Other Distributions. In the event this corporation shall declare a distribution payable in securities of other persons, evidences of indebtedness issued by this corporation or other persons, assets (excluding cash dividends) or options or rights not referred to in subsection 4(d)(ii), then, in each such case for the purpose of this subsection 4(e), the holders of the Preferred Stock shall be entitled to a proportionate share of any such distribution as though they were the holders of the number of shares of Common Stock of this corporation into which their shares of Preferred Stock are convertible as of the record date fixed for the determination of the holders of Common Stock of this corporation entitled to receive such distribution.

(f) Recapitalizations. If at any time or from time to time there shall be a recapitalization of the Common Stock (other than a subdivision, combination or merger or sale of assets transaction provided for elsewhere in this Section 4 or in Section 2), then provision shall be made so that the holders of the Preferred Stock shall thereafter be entitled to receive, upon conversion of the Preferred Stock, the number of shares of stock or other securities or property of this corporation or otherwise to which a holder of Common Stock deliverable upon conversion would have been entitled on such recapitalization. In any such case, appropriate adjustment shall be made in the application of the provisions of this Section 4 with respect to the rights of the holders of the Preferred Stock after the recapitalization to the end that the provisions of this Section 4 (including adjustment of the Conversion Price then in effect and the number of shares purchasable upon conversion of the Preferred Stock) shall be applicable after that event as nearly equivalently as may be practicable.

(g) No Fractional Shares and Certificate as to Adjustments.

(i) No fractional shares shall be issued upon the conversion of any share or shares of the Preferred Stock, and the aggregate number of shares of Common Stock to be issued to particular stockholders shall be rounded down to the nearest whole share and this corporation shall pay in cash the fair market value of any fractional shares as of the time when entitlement to receive such fractions is determined. Whether or not fractional shares would be issuable upon such conversion shall be determined on the basis of the total number of shares of Preferred Stock the holder is at the time converting into Common Stock and the number of shares of Common Stock issuable upon such conversion.

(ii) Upon the occurrence of each adjustment or readjustment of the Conversion Price of Preferred Stock pursuant to this Section 4, this corporation, at its expense, shall promptly compute such adjustment or readjustment in accordance with the terms hereof and prepare and furnish to each holder of Preferred Stock a certificate setting forth such adjustment or readjustment and showing in detail the facts upon which such adjustment or readjustment is based. This corporation shall, upon the written request at any time of any holder of Preferred Stock, furnish or cause to be furnished to such holder a like certificate setting forth (A) such adjustment and readjustment, (B) the Conversion Price for such series of Preferred Stock at the time in effect, and (C) the number of shares of Common Stock and the amount, if any, of other property that at the time would be received upon the conversion of a share of Preferred Stock.

(h) Notices of Record Date. In the event of any taking by this corporation of a record of the holders of any class of securities for the purpose of determining the holders thereof who are entitled to receive any dividend (other than a cash dividend) or other distribution, this corporation shall mail to each holder of Preferred Stock, at least ten (10) days prior to the date specified therein, a notice specifying the date on which any such record is to be taken for the purpose of such dividend or distribution, and the amount and character of such dividend or distribution.

(i) Reservation of Stock Issuable Upon Conversion. This corporation shall at all times reserve and keep available out of its authorized but unissued shares of Common Stock, solely for the purpose of effecting the conversion of the shares of the Preferred Stock, such number of its shares of Common Stock as shall from time to time be sufficient to effect the conversion of all outstanding shares of the Preferred Stock; and if at any time the number of authorized but unissued shares of Common Stock shall not be sufficient to effect the conversion of all then outstanding shares of the Preferred Stock, in addition to such other remedies as shall be available to the holder of such Preferred Stock, this corporation will take such corporate action as may, in the opinion of its counsel, be necessary to increase its authorized but unissued shares of Common Stock to such number of shares as shall be sufficient for such purposes, including, without limitation, engaging in best efforts to obtain the requisite stockholder approval of any necessary amendment to this Restated Certificate of Incorporation.

(j) Waiver of Adjustment to Conversion Price. Notwithstanding anything herein to the contrary, any downward adjustment of the Conversion Price of any series of Preferred Stock may be waived, either prospectively or retroactively and either generally or in a particular instance, by the consent or vote of the holders of a majority of the outstanding shares of Preferred Stock (voting together as a single class and not as separate series, and on an as-converted basis). Any such waiver shall bind all future holders of shares of such series of Preferred Stock.

5. Voting Rights.

(a) General Voting Rights. The holder of each share of Preferred Stock shall have the right to one vote for each share of Common Stock into which such Preferred Stock could then be converted, and with respect to such vote, such holder shall have full voting rights and powers equal to the voting rights and powers of the holders of Common Stock, and shall be entitled, notwithstanding any provision hereof, to notice of any stockholders' meeting in accordance with the bylaws of this corporation (the "**Bylaws**"), and except as provided by law or in subsection 5(b) below with respect to the election of directors by the separate class vote of the holders of Common Stock, shall be entitled to vote, together with holders of Common Stock, with respect to any question upon which holders of Common Stock have the right to vote. Fractional votes shall not, however, be permitted and any fractional voting rights available on an as-converted basis (after aggregating all shares into which shares of Preferred Stock held by each holder could be converted) shall be rounded to the nearest whole number (with one-half being rounded upward).

(b) Voting for the Election of Directors. As long as at least one million six hundred sixty-six thousand six hundred sixty-six (1,666,666) shares of Series B Preferred Stock are outstanding, the holders of Series B Preferred Stock shall be entitled to elect one (1) director of this corporation at any election of directors. As long as at least six hundred sixty-six thousand six hundred sixty-six (666,666) shares of Series A Preferred Stock are outstanding, the holders of Series A Preferred Stock shall be entitled to elect two (2) directors of this corporation at any election of directors. The holders of outstanding Common Stock shall be entitled to elect one (1) director of this corporation at any election of directors. The holders of Series B Preferred Stock, Series A Preferred Stock, Series A-1 Preferred Stock and Common Stock (voting together as a single class and not as separate series, and on an as-converted basis) shall be entitled to elect any remaining directors of this corporation.

Notwithstanding the provisions of Section 223(a)(1) and 223(a)(2) of the General Corporation Law, any vacancy, including newly created directorships resulting from any increase in the authorized number of directors or amendment of this Restated Certificate of Incorporation, and vacancies created by removal or resignation of a director, may be filled by a majority of the directors then in office, though less than a quorum, or by a sole remaining director, and the directors so chosen shall hold office until the next annual election and until their successors are duly elected and shall qualify, unless sooner displaced; provided, however, that where such vacancy occurs among the directors elected by the holders of a class or series of stock, the holders of shares of such class or series may override the action of the Board of Directors to fill such vacancy by (i) voting for their own designee to fill such vacancy at a meeting of this corporation's stockholders or (ii) written consent, if the consenting stockholders hold a sufficient number of shares to elect their designee at a meeting of the stockholders. Any director may be removed during his or her term of office, either with or without cause, by, and only by, the affirmative vote of the holders of the shares of the class or series of stock entitled to elect such director or directors, given either at a special meeting of such stockholders duly called for that purpose or pursuant to a written consent of stockholders, and any vacancy thereby created may be filled by the holders of that class or series of stock represented at the meeting or pursuant to written consent.

6. Protective Provisions.

(a) So long as at least one million six hundred sixty-six thousand six hundred sixty-six (1,666,666) shares of Preferred Stock are outstanding, this corporation shall not (by amendment, merger, consolidation or otherwise) without (in addition to any other vote required by law or this Restated Certificate of Incorporation) first obtaining the approval by vote or written consent, as provided by law, of the holders of a majority of the then outstanding shares of Preferred Stock (voting together as a single class and not as separate series, and on an as-converted basis):

(i) consummate a Liquidation Event or effect any other merger or consolidation with respect to this corporation or any similar event with respect to any of Nina Biotherapeutics, Inc., Pinta Biotherapeutics, Inc., or Santa Maria Biotherapeutics, Inc.;

(ii) amend, alter or repeal any provision of this Restated Certificate of Incorporation or the Bylaws so as to adversely alter or change the powers, preferences or special rights of the shares of Preferred Stock;

(iii) increase or decrease (other than by redemption or conversion) the total number of authorized shares of Common Stock or Preferred Stock or designated shares of any series of Preferred Stock;

(iv) authorize or issue any equity security (including any other security convertible into or exercisable for any such equity security) having a preference over, or being on a parity with, any series of Preferred Stock with respect to dividends, liquidation or redemption, other than the issuance of any authorized but unissued shares of Series B Preferred Stock designated in this Restated Certificate of Incorporation (including any security convertible into or exercisable for such shares of Preferred Stock) or issue to any third party any equity security of any of Nina Biotherapeutics, Inc., Pinta Biotherapeutics, Inc., or Santa Maria Biotherapeutics, Inc.;

(v) redeem, purchase or otherwise acquire (or pay into or set aside for a sinking fund for such purpose) any share or shares of Preferred Stock or Common Stock; provided, however, that this restriction shall not apply to the repurchase of shares of Common Stock from employees, officers, directors, consultants or other persons performing services for this corporation or any subsidiary pursuant to agreements under which this corporation has the option to repurchase such shares upon the occurrence of certain events, such as the termination of employment or service, or pursuant to a right of first refusal;

(vi) change the authorized number of directors of this corporation;

(vii) pay or declare any dividend or make any other distribution on any shares of capital stock of this corporation other than dividends payable on the Common Stock solely in the form of additional shares of Common Stock;

(viii) create or authorize the creation of any debt security (which shall not include trade payables, equipment leases or bank lines of credit approved by the Board of Directors); or

(ix) establish any subsidiary of this corporation (other than Nina Biotherapeutics, Inc., Pinta Biotherapeutics, Inc., or Santa Maria Biotherapeutics, Inc.) or sell any subsidiary of this corporation.

(b) So long as at least at least one million six hundred sixty-six thousand six hundred sixty-six (1,666,666) shares of Series B Preferred Stock are outstanding, this corporation shall not (by amendment, merger, consolidation or otherwise) without (in addition to any other vote required by law or this Restated Certificate of Incorporation) first obtaining the approval by vote or written consent, as provided by law, of the holders of a majority of the then outstanding shares of Series B Preferred Stock:

(i) increase or decrease (other than by redemption or conversion) the total number of authorized shares of Series B Preferred Stock; or

(ii) amend, alter or repeal any provision of this Restated Certificate of Incorporation or the Bylaws so as to adversely affect the Series B Preferred Stock in a manner that is different than the other series of Preferred Stock, it being understood that the Series B Preferred Stock shall not be affected differently because of the proportional differences in the amounts of respective issue prices, conversion prices, liquidation preferences and redemption prices that arise out of differences in the Price compared to other series of Preferred Stock.

(c) So long as at least 400,000 shares of Series A-1 Preferred Stock remain outstanding, this corporation shall not (by amendment, merger, consolidation or otherwise) without (in addition to any other vote required by law or this Restated Certificate of Incorporation) first obtaining the approval by vote or written consent, as provided by law, of the holders of a majority of the then outstanding shares of Series A-1 Preferred Stock:

(i) reduce the amount of the Series A-1 Preferred Stock liquidation preference or modify the status of the Series A-1 Preferred Stock as being pari passu to the Series A Preferred Stock and senior to the Common Stock; or

(ii) amend, alter or repeal any provision of this Restated Certificate of Incorporation or the Bylaws so as to adversely effect the Series A-1 Preferred Stock in a manner that is different than the Series A Preferred Stock.

7. Status of Converted Stock. In the event any shares of Preferred Stock shall be converted pursuant to Section 4 hereof, the shares so converted shall be cancelled and shall not be reissuable by this corporation. This Restated Certificate of Incorporation shall be appropriately amended to effect the corresponding reduction in this corporation's authorized capital stock.

8. Notices. Any notice required by the provisions of this Article IV(B) to be given to the holders of shares of Preferred Stock shall be deemed given (i) if deposited in the United States mail, postage prepaid, and addressed to each holder of record at his, her or its address appearing on the books of this corporation, (ii) if such notice is provided by electronic transmission in a manner permitted by Section 232 of the General Corporation Law, or (iii) if such notice is provided in another manner then permitted by the General Corporation Law.

C. Common Stock. The rights, preferences, privileges and restrictions granted to and imposed on the Common Stock are as set forth below in this Article IV(C).

1. Dividend Rights. Subject to the prior rights of holders of all classes of stock at the time outstanding having prior rights as to dividends, the holders of the Common Stock shall be entitled to receive, when, as and if declared by the Board of Directors, out of any assets of this corporation legally available therefor, any dividends as may be declared from time to time by the Board of Directors.

2. Liquidation Rights. Upon the liquidation, dissolution or winding up of this corporation, the assets of this corporation shall be distributed as provided in Section 2 of Article IV(B) hereof.

3. Redemption. The Common Stock is not redeemable at the option of the holder.

4. Voting Rights. The holder of each share of Common Stock shall have the right to one vote for each such share, and shall be entitled to notice of any stockholders' meeting in accordance with the Bylaws, and shall be entitled to vote upon such matters and in such manner as may be provided by law; provided, however, that, except as otherwise required by law, holders of Common Stock, as such, shall not be entitled to vote on any amendment to this Restated Certificate of Incorporation that relates solely to the terms of one or more outstanding series of Preferred Stock if the holders of such affected series are entitled, either separately or together with the holders of one or more other such series, to vote thereon pursuant to this Restated Certificate of Incorporation or pursuant to the General Corporation Law. The number of authorized shares of Common Stock may be increased or decreased (but not below the number of shares thereof then outstanding) by the affirmative vote of the holders of a majority of the stock of this corporation entitled to vote, irrespective of the provisions of Section 242(b)(2) of the General Corporation Law.

ARTICLE V

Except as otherwise provided in this Restated Certificate of Incorporation, in furtherance and not in limitation of the powers conferred by statute, the Board of Directors is expressly authorized to make, repeal, alter, amend and rescind any or all of the Bylaws of this corporation.

ARTICLE VI

The number of directors of this corporation shall be determined in the manner set forth in the Bylaws.

ARTICLE VII

Elections of directors need not be by written ballot unless the Bylaws shall so provide.

ARTICLE VIII

Meetings of stockholders may be held within or without the State of Delaware, as the Bylaws may provide. The books of this corporation may be kept (subject to any provision contained in the statutes) outside the State of Delaware at such place or places as may be designated from time to time by the Board of Directors or in the Bylaws.

ARTICLE IX

A director of this corporation shall not be personally liable to this corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, except for liability (i) for any breach of the director's duty of loyalty to this corporation or its stockholders, (ii) for acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of the General Corporation Law, or (iv) for any transaction from which the director derived any improper personal benefit. If the General Corporation Law is amended after approval by the stockholders of this Article IX to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director of this corporation shall be eliminated or limited to the fullest extent permitted by the General Corporation Law as so amended.

Any amendment, repeal or modification of the foregoing provisions of this Article IX by the stockholders of this corporation shall not adversely affect any right or protection of a director of this corporation existing at the time of, or increase the liability of any director of this corporation with respect to any acts or omissions of such director occurring prior to, such amendment, repeal or modification.

ARTICLE X

This corporation reserves the right to amend, alter, change or repeal any provision contained in this Restated Certificate of Incorporation, in the manner now or hereafter prescribed by statute, and all rights conferred upon stockholders herein are granted subject to this reservation.

ARTICLE XI

To the fullest extent permitted by applicable law, this corporation is authorized to provide indemnification of (and advancement of expenses to) directors, officers, employees and agents of this corporation (and any other persons to which the General Corporation Law permits this corporation to provide indemnification) through provision of the Bylaws, agreements with such persons, vote of stockholders or disinterested directors or otherwise, in excess of the indemnification and advancement otherwise permitted by Section 145 of the General Corporation Law, subject only to limits created by applicable General Corporation Law (statutory or non-statutory), with respect to actions for breach of duty to this corporation, its stockholders, and others.

Any amendment, repeal or modification of the foregoing provisions of this Article XI shall not adversely affect any right or protection of a director, officer, employee, agent or other person existing at the time of, or increase the liability of any such person with respect to any acts or omissions of such person occurring prior to, such amendment, repeal or modification.

ARTICLE XII

This corporation renounces any interest or expectancy of this corporation in, or in being offered an opportunity to participate in, an Excluded Opportunity. An "Excluded Opportunity" is any matter, transaction or interest that is presented to, or acquired, created or

developed by, or which otherwise comes into the possession of, (i) any director of this corporation who is not an employee of this corporation or any of its subsidiaries, or (ii) any holder of Preferred Stock or any partner, member, director, stockholder, employee or agent of any such holder, other than someone who is an employee of this corporation or any of its subsidiaries (collectively, "**Covered Persons**"), unless such matter, transaction or interest is presented to, or acquired, created or developed by, or otherwise comes into the possession of, a Covered Person expressly and solely in such Covered Person's capacity as a director of this corporation.

ARTICLE XIII

In connection with repurchases by this corporation of its Common Stock from employees, officers, directors, advisors, consultants or other persons performing services for this corporation or any subsidiary pursuant to agreements under which this corporation has the option to repurchase such shares at cost upon the occurrence of certain events, such as the termination of employment, Section 500 of the California Corporations Code shall not apply in all or in part with respect to such repurchases. In the case of any such repurchases, distributions by the corporation may be made without regard to the "preferential dividends arrears amount" or any "preferential rights amount," as such terms are defined in Section 500(b) of the California Corporations Code.

* * *

THIRD: The foregoing amendment and restatement was approved by the holders of the requisite number of shares of said corporation in accordance with Section 228 of the General Corporation Law.

FOURTH: That this Restated Certificate of Incorporation, which restates and integrates and further amends the provisions of this corporation's certificate of incorporation, as amended, has been duly adopted in accordance with Sections 242 and 245 of the General Corporation Law.

IN WITNESS WHEREOF, this Restated Certificate of Incorporation has been executed by a duly authorized officer of this corporation on this 31 day of March, 2014.

/s/ Isaac Ciechanover

Isaac Ciechanover, President

AMENDED AND RESTATED CERTIFICATE OF INCORPORATION OF ATARA BIOTHERAPEUTICS, INC.

ISSAC CIECHANOVER hereby certifies that:

ONE: The original name of this corporation is Atara, Inc. and the date of filing the original Certificate of Incorporation of this corporation with the Secretary of State of the State of Delaware was August 22, 2012.

TWO: He is the duly elected and acting President and Chief Executive Officer of Atara Biotherapeutics, Inc., a Delaware corporation.

THREE: The Certificate of Incorporation of this corporation is hereby amended and restated to read as follows:

I.

The name of this corporation is Atara Biotherapeutics, Inc. (the "***Company***").

II.

The address of the registered office of the Company in the State of Delaware is 3500 South Dupont Highway, City of Dover, County of Kent, 19901 and the name of the registered agent of the Company in the State of Delaware at such address is Incorporating Services, Ltd.

III.

The purpose of the Company is to engage in any lawful act or activity for which a corporation may be organized under the Delaware General Corporation Law ("***DGCL***").

IV.

A. The Company is authorized to issue two classes of stock to be designated, respectively, "***Common Stock***" and "***Preferred Stock***." The total number of shares that the Company is authorized to issue is 520,000,000 shares. 500,000,000 shares shall be Common Stock, each having a par value of $0.0001. 20,000,000 shares shall be Preferred Stock, each having a par value of $0.001.

B. The Preferred Stock may be issued from time to time in one or more series. The Board of Directors is hereby expressly authorized to provide for the issue of all of any of the shares of the Preferred Stock in one or more series, and to fix the number of shares and to determine or alter for each such series, such voting powers, full or limited, or no voting powers, and such designation, preferences, and relative, participating, optional, or other rights and such qualifications, limitations, or restrictions thereof, as shall be stated and expressed in the resolution or resolutions adopted by the Board of Directors providing for the issuance of such shares and as may be permitted by the DGCL. The Board of Directors is also expressly authorized to increase or decrease the number of shares of any series subsequent to the issuance of shares of that series, but not below the number of shares of such series then outstanding. In case the number of shares of any series shall be decreased in accordance with the foregoing sentence, the shares constituting such decrease shall resume the status that they had prior to the adoption of the resolution originally fixing the number of shares of such series.

C. The number of authorized shares of Preferred Stock may be increased or decreased (but not below the number of shares thereof then outstanding) by the affirmative vote of the holders of a majority of the voting power of the stock of the Company entitled to vote thereon, without a separate vote of the holders of the Preferred Stock, or of any series thereof, unless a vote of any such holders is required pursuant to the terms of any certificate of designation filed with respect to any series of Preferred Stock.

D. Each outstanding share of Common Stock shall entitle the holder thereof to one vote on each matter properly submitted to the stockholders of the Company for their vote; provided, however, that, except as otherwise required by law, holders of Common Stock shall not be entitled to vote on any amendment to this Certificate of Incorporation (including any certificate of designation filed with respect to any series of Preferred Stock) that relates solely to the terms of one or more outstanding series of Preferred Stock if the holders of such affected series are entitled, either separately or together as a class with the holders of one or more other such series, to vote thereon by law or pursuant to this Certificate of Incorporation (including any certificate of designation filed with respect to any series of Preferred Stock).

V.

For the management of the business and for the conduct of the affairs of the Company, and in further definition, limitation and regulation of the powers of the Company, of its directors and of its stockholders or any class thereof, as the case may be, it is further provided that:

A. Board of Directors.

1. Generally. The management of the business and the conduct of the affairs of the Company shall be vested in its Board of Directors. The number of directors that shall constitute the Board of Directors shall be fixed exclusively by resolutions adopted by a majority of the authorized number of directors constituting the Board of Directors.

2. Board of Directors. Subject to the rights of the holders of any series of Preferred Stock to elect additional directors under specified circumstances, the directors shall be divided into three classes designated as Class I, Class II and Class III, respectively. The Board of Directors is authorized to assign members of the Board of Directors already in office to such classes at the time the classification becomes effective. At the first annual meeting of stockholders following the initial classification, the term of office of the Class I directors shall expire and Class I directors shall be elected for a full term of three years. At the second annual meeting of stockholders following the initial classification, the term of office of the Class II directors shall expire and Class II directors shall be elected for a full term of three years. At the third annual meeting of stockholders following the initial classification, the term of office of the Class III directors shall expire and Class III directors shall be elected for a full term of three years. At each succeeding annual meeting of stockholders, directors shall be elected for a full term of three years to succeed the directors of the class whose terms expire at such annual meeting. Notwithstanding the foregoing provision of this section, each director shall serve until his or her successor is duly elected and qualified or until his or her earlier death, resignation or removal. No decrease in the number of directors constituting the Board of Directors shall shorten the term of any incumbent director.

3. Removal of Directors. Subject to the rights of any series of Preferred Stock to elect additional directors under specified circumstances, neither the Board of Directors nor any individual director may be removed without cause. Subject to any limitations imposed by applicable law, any individual director or directors may be removed without cause by the affirmative vote of the holders of 66 2/3% of the voting power of all then outstanding shares of capital stock of the Company entitled to vote generally at an election of directors.

4. Vacancies. Subject to any limitations imposed by applicable law and subject to the rights of the holders of any series of Preferred Stock, any vacancies on the Board of Directors resulting from death, resignation, disqualification, removal or other causes and any newly created directorships resulting from any increase in the number of directors, shall, unless the Board of Directors determines by resolution that any such vacancies or newly created directorships shall be filled by the stockholders and except as otherwise provided by applicable law, be filled only by the affirmative vote of a majority of the directors then in office, even though less than a quorum of the Board of Directors, and not by the stockholders. Any director elected in accordance with the preceding sentence shall hold office for the remainder of the full term of the director for which the vacancy was created or occurred and until such director's successor shall have been elected and qualified.

B. Stockholder Actions. No action shall be taken by the stockholders of the Company except at an annual or special meeting of stockholders called in accordance with the Bylaws. Advance notice of stockholder nominations for the election of directors and of business to be brought by stockholders before any meeting of the stockholders of the Company shall be given in the manner provided in the Bylaws of the Company.

C. Bylaws. The Board of Directors is expressly empowered to adopt, amend or repeal the Bylaws of the Company. Any adoption, amendment or repeal of the Bylaws of the Company by the Board of Directors shall require the approval of a majority of the authorized number of directors. The stockholders shall also have power to adopt, amend or repeal the Bylaws of the Company; provided, however, that, in addition to any vote of the holders of any class or series of stock of the Company required by law or by this Certificate of Incorporation, such action by stockholders shall require the affirmative vote of the holders of at least 66 2/3% of the voting power of all of the then-outstanding shares of the capital stock of the Company entitled to vote generally in the election of directors, voting together as a single class.

VI.

A. The liability of the directors for monetary damages shall be eliminated to the fullest extent under applicable law.

B. To the fullest extent permitted by applicable law, the Company is authorized to provide indemnification of (and advancement of expenses to) directors, officers and agents of the Company (and any other persons to which applicable law permits the Company to provide indemnification) through Bylaw provisions, agreements with such agents or other persons, vote of stockholders or disinterested directors or otherwise in excess of the indemnification and advancement otherwise permitted by such applicable law. If applicable law is amended after approval by the stockholders of this Article VI to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director to the company shall be eliminated or limited to the fullest extent permitted by applicable law as so amended.

C. Any repeal or modification of this Article VI shall only be prospective and shall not affect the rights or protections or increase the liability of any director under this Article VI in effect at the time of the alleged occurrence of any act or omission to act giving rise to liability or indemnification.

D. Unless the Company consents in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware shall be the sole and exclusive forum for (i) any derivative action or proceeding brought on behalf of the Company; (ii) any action asserting a claim of breach of a fiduciary duty owed by any director, officer or other employee of the Company to the Company or the Company's stockholders; (iii) any action asserting a claim against the Company or any director or officer or other employee of the Company arising pursuant to any provision of the DGCL, the Amended and Restated Certificate of Incorporation or the Bylaws of the Company; or (iv) any action asserting a claim against the Company or any director or officer or other employee of the Company governed by the internal affairs doctrine.

VII.

A. The Company reserves the right to amend, alter, change or repeal any provision contained in this Certificate of Incorporation, in the manner now or hereafter prescribed by statute, except as provided in paragraph B. of this Article VII, and all rights conferred upon the stockholders herein are granted subject to this reservation.

B. Notwithstanding any other provisions of this Certificate of Incorporation or any provision of law that might otherwise permit a lesser vote or no vote, but in addition to any affirmative vote of the holders of any particular class or series of stock of the Company required by law or by this Certificate of Incorporation or any certificate of designation filed with respect to a series of Preferred Stock, the affirmative vote of the holders of at least 66 2/3% of the voting power of all of the then-outstanding shares of capital stock of the Company entitled to vote generally in the election of directors, voting together as a single class, shall be required to alter, amend or repeal Articles V, VI, and VII.

* * * *

FOUR: This Amended and Restated Certificate of Incorporation has been duly approved by the Board of Directors of this corporation.

FIVE: This Amended and Restated Certificate of Incorporation was approved by the holders of the requisite number of shares of this corporation in accordance with Section 228 of the DGCL. This Amended and Restated Certificate of Incorporation has been duly adopted in accordance with the provisions of Sections 242 and 245 of the DGCL by the stockholders of this corporation.

ATARA BIOTHERAPEUTICS, INC. has caused this Amended and Restated Certificate of Incorporation to be signed by its President and Chief Executive Officer on [•], 2014.

Atara Biotherapeutics, Inc.

Issac Ciechanover
President and Chief Executive Officer

Exhibit 3.3

BYLAWS OF

ATARA, INC.

(A DELAWARE CORPORATION)

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BYLAWS
OF
ATARA, INC.

ARTICLE I
OFFICES

1.1 **Registered Office.** The registered office shall be in the City of Dover, County of Kent, State of Delaware.

1.2 **Offices**. The corporation may also have offices at such other places both within and without the State of Delaware as the Board of Directors may from time to time determine or the business of the corporation may require.

ARTICLE II
MEETINGS OF STOCKHOLDERS

2.1 **Location**. All meetings of the stockholders for the election of directors shall be held in the City of Menlo Park, state of California, at such place as may be fixed from time to time by the Board of Directors, or at such other place either within or without the State of Delaware as shall be designated from time to time by the Board of Directors and stated in the notice of the meeting; provided, however, that the Board of Directors may, in its sole discretion, determine that the meeting shall not be held at any place, but may instead be held solely by means of remote communication as authorized by Section 211 of the Delaware General Corporations Law ("DGCL"). Meetings of stockholders for any other purpose may be held at such time and place, if any, within or without the State of Delaware, as shall be stated in the notice of the meeting or in a duly executed waiver of notice thereof, or a waiver by electronic transmission by the person entitled to notice.

2.2 **Timing**. Annual meetings of stockholders, commencing with the year 2013, shall be held at such date and time as shall be designated from time to time by the Board of Directors and stated in the notice of the meeting, at which they shall elect by a plurality vote a Board of Directors, and transact such other business as may properly be brought before the meeting.

2.3 **Notice of Meeting**. Written notice of any stockholder meeting stating the place, if any, date and hour of the meeting, the means of remote communication, if any, by which stockholders and proxyholders may be deemed to be present in person and vote at such meeting, shall be given to each stockholder entitled to vote at such meeting not fewer than ten (10) nor more than sixty (60) days before the date of the meeting.

2.4 **Stockholders' Records**. The officer who has charge of the stock ledger of the corporation shall prepare and make, at least ten (10) days before every meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting, arranged in alphabetical order, and showing the address (but not the electronic address or other electronic contact information) of each stockholder and the number of shares registered in the name of each

stockholder. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting for a period of at least 10 days prior to the meeting: (i) on a reasonably accessible electronic network, provided that the information required to gain access to such list is provided with the notice of the meeting, or (ii) during ordinary business hours, at the principal place of business of the corporation. In the event that the corporation determines to make the list available on an electronic network, the corporation may take reasonable steps to ensure that such information is available only to stockholders of the corporation. If the meeting is to be held at a place, then the list shall be produced and kept at the time and place of the meeting during the whole time thereof, and may be inspected by any stockholder who is present. If the meeting is to be held solely by means of remote communication, then the list shall also be open to the examination of any stockholder during the whole time of the meeting on a reasonably accessible electronic network, and the information required to access such list shall be provided with the notice of the meeting.

2.5 **Special Meetings**. Special meetings of the stockholders, for any purpose or purposes, unless otherwise prescribed by statute or by the certificate of incorporation, may be called by the president and shall be called by the president or secretary at the request in writing of a majority of the Board of Directors, or at the request in writing of stockholders owning at least twenty percent (20%) in amount of the entire capital stock of the corporation issued and outstanding and entitled to vote. Such request shall state the purpose or purposes of the proposed meeting.

2.6 **Notice of Meeting**. Written notice of a special meeting stating the place, date and hour of the meeting and the purpose or purposes for which the meeting is called, shall be given not fewer than ten (10) nor more than sixty (60) days before the date of the meeting, to each stockholder entitled to vote at such meeting. The means of remote communication, if any, by which stockholders and proxyholders may be deemed to be present in person and vote at such meeting shall also be provided in the notice.

2.7 **Business Transacted at Special Meeting**. Business transacted at any special meeting of stockholders shall be limited to the purposes stated in the notice.

2.8 **Quorum; Meeting Adjournment; Presence by Remote Means**.

(a) *Quorum; Meeting Adjournment*. The holders of a majority of the stock issued and outstanding and entitled to vote thereat, present in person or represented by proxy, shall constitute a quorum at all meetings of the stockholders for the transaction of business except as otherwise provided by statute or by the certificate of incorporation. If, however, such quorum shall not be present or represented at any meeting of the stockholders, the stockholders entitled to vote thereat, present in person or represented by proxy, shall have power to adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum shall be present or represented. At such adjourned meeting at which a quorum shall be present or represented, any business may be transacted that might have been transacted at the meeting as originally notified. If the adjournment is for more than thirty (30) days, or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting.

(b) *Presence by Remote Means*. If authorized by the Board of Directors in its sole discretion, and subject to such guidelines and procedures as the Board of Directors may adopt, stockholders and proxyholders not physically present at a meeting of stockholders may, by means of remote communication:

(1) participate in a meeting of stockholders; and

(2) be deemed present in person and vote at a meeting of stockholders whether such meeting is to be held at a designated place or solely by means of remote communication, provided that (i) the corporation shall implement reasonable measures to verify that each person deemed present and permitted to vote at the meeting by means of remote communication is a stockholder or proxyholder, (ii) the corporation shall implement reasonable measures to provide such stockholders and proxyholders a reasonable opportunity to participate in the meeting and to vote on matters submitted to the stockholders, including an opportunity to read or hear the proceedings of the meeting substantially concurrently with such proceedings, and (iii) if any stockholder or proxyholder votes or takes other action at the meeting by means of remote communication, a record of such vote or other action shall be maintained by the corporation.

2.9 **Voting Thresholds**. When a quorum is present at any meeting, the vote of the holders of a majority of the stock having voting power present in person or represented by proxy shall decide any question brought before such meeting, unless the question is one upon which by express provision of the statutes or of the certificate of incorporation, a different vote is required, in which case such express provision shall govern and control the decision of such question.

2.10 **Number of Votes Per Share**. Unless otherwise provided in the certificate of incorporation, each stockholder shall at every meeting of the stockholders be entitled to one vote by such stockholder or by proxy for each share of the capital stock having voting power held by such stockholder, but no proxy shall be voted on after three years from its date, unless the proxy provides for a longer period.

2.11 **Action by Written Consent of Stockholders; Electronic Consent; Notice of Action** .

(a) *Action by Written Consent of Stockholders.* Unless otherwise provided by the certificate of incorporation, any action required or permitted to be taken at any annual or special meeting of the stockholders may be taken without a meeting, without prior notice and without a vote, if a consent in writing setting forth the action so taken, is signed in a manner permitted by law by the holders of outstanding stock having not less than the number of votes that would be necessary to authorize or take such action at a meeting at which all shares entitled to vote thereon were present and voted. Written stockholder consents shall bear the date of signature of each stockholder who signs the consent in the manner permitted by law and shall be delivered to the corporation as provided in subsection (b) below. No written consent shall be effective to take the action set forth therein unless, within sixty (60) days of the earliest dated consent delivered to the corporation in the manner provided above, written consents signed by a sufficient number of stockholders to take the action set forth therein are delivered to the corporation in the manner provided above.

(b) *Electronic Consent.* A telegram, cablegram or other electronic transmission consenting to an action to be taken and transmitted by a stockholder or proxyholder, or a person or persons authorized to act for a stockholder or proxyholder, shall be deemed to be written, signed and dated for the purposes of this section, provided that any such telegram, cablegram or other electronic transmission sets forth or is delivered with information from which the corporation can determine (1) that the telegram, cablegram or other electronic transmission was transmitted by the stockholder or proxyholder or by a person or persons authorized to act for the stockholder or proxyholder and (2) the date on which such stockholder or proxyholder or authorized person or persons transmitted such telegram, cablegram or electronic transmission. The date on which such telegram, cablegram or electronic transmission is transmitted shall be deemed to be the date on which such consent was signed. No consent given by telegram, cablegram or other electronic transmission shall be deemed to have been delivered until such consent is reproduced in paper form and until such paper form is delivered to the corporation by delivery to its registered office in the State of Delaware, its principal place of business or an officer or agent of the corporation having custody of the book in which proceedings of meetings of stockholders are recorded. Delivery made to a corporation's registered office shall be made by hand or by certified or registered mail, return receipt requested. Notwithstanding the foregoing limitations on delivery, consents given by telegram, cablegram or other electronic transmission may be otherwise delivered to the principal place of business of the corporation or to an officer or agent of the corporation having custody of the book in which proceedings of meetings of stockholders are recorded if, to the extent and in the manner provided by resolution of the Board of Directors of the corporation.

(c) *Notice of Action.* Prompt notice of any action taken pursuant to this Section 2.11 shall be provided to the stockholders in accordance with Section 228(e) of the DGCL.

ARTICLE III
DIRECTORS

3.1 **Authorized Directors**. The number of directors that shall constitute the whole Board of Directors shall be determined by resolution of the Board of Directors or by the stockholders at the annual meeting of the stockholders, except as provided in Section 3.2 of this Article, and each director elected shall hold office until his successor is elected and qualified. Directors need not be stockholders.

3.2 **Vacancies**. Unless otherwise provided in the corporation's certificate of incorporation, as it may be amended, vacancies and newly created directorships resulting from any increase in the authorized number of directors may be filled by a majority of the directors then in office, though less than a quorum, or by a sole remaining director, and the directors so chosen shall hold office until the next annual election and until their successors are duly elected and shall qualify, unless sooner displaced. If there are no directors in office, then an election of directors may be held in the manner provided by statute. If, at the time of filling any vacancy or any newly created directorship, the directors then in office shall constitute less than a majority of

the whole Board of Directors (as constituted immediately prior to any such increase), the Court of Chancery may, upon application of any stockholder or stockholders holding at least ten percent (10%) of the total number of the shares at the time outstanding having the right to vote for such directors, summarily order an election to be held to fill any such vacancies or newly created directorships, or to replace the directors chosen by the directors then in office.

3.3 **Board Authority**. The business of the corporation shall be managed by or under the direction of its Board of Directors, which may exercise all such powers of the corporation and do all such lawful acts and things as are not by statute or by the certificate of incorporation or by these bylaws directed or required to be exercised or done by the stockholders.

3.4 **Location of Meetings**. The Board of Directors of the corporation may hold meetings, both regular and special, either within or without the State of Delaware.

3.5 **First Meeting**. The first meeting of each newly elected Board of Directors shall be held at such time and place as shall be fixed by the vote of the stockholders at the annual meeting and no notice of such meeting shall be necessary to the newly elected directors in order to legally constitute the meeting, provided a quorum shall be present. In the event of the failure of the stockholders to fix the time or place of such first meeting of the newly elected Board of Directors, or in the event such meeting is not held at the time and place so fixed by the stockholders, the meeting may be held at such time and place as shall be specified in a notice given as hereinafter provided for special meetings of the Board of Directors, or as shall be specified in a written waiver signed by all of the directors.

3.6 **Regular Meetings**. Regular meetings of the Board of Directors may be held without notice at such time and at such place as shall from time to time be determined by the Board of Directors.

3.7 **Special Meetings**. Special meetings of the Board of Directors may be called by the president upon notice to each director; special meetings shall be called by the president or secretary in like manner and on like notice on the written request of two (2) directors unless the Board of Directors consists of only one director, in which case special meetings shall be called by the president or secretary in like manner and on like notice on the written request of the sole director. Notice of any special meeting shall be given to each director at his business or residence in writing, or by telegram, facsimile transmission, telephone communication or electronic transmission (provided, with respect to electronic transmission, that the director has consented to receive the form of transmission at the address to which it is directed). If mailed, such notice shall be deemed adequately delivered when deposited in the United States mails so addressed, with postage thereon prepaid, at least five (5) days before such meeting. If by telegram, such notice shall be deemed adequately delivered when the telegram is delivered to the telegraph company at least twenty-four (24) hours before such meeting. If by facsimile transmission or other electronic transmission, such notice shall be transmitted at least twenty-four (24) hours before such meeting. If by telephone, the notice shall be given at least twelve (12) hours prior to the time set for the meeting. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the Board of Directors need be specified in the notice of such meeting, except for amendments to these Bylaws as provided under Section 8.1 of Article VIII hereof. A meeting may be held at any time without notice if all the directors are present (except as otherwise provided by law) or if those not present waive notice of the meeting in writing, either before or after such meeting.

3.8 **Quorum**. At all meetings of the Board of Directors a majority of the directors shall constitute a quorum for the transaction of business and any act of a majority of the directors present at any meeting at which there is a quorum shall be an act of the Board of Directors, except as may be otherwise specifically provided by statute or by the certificate of incorporation. If a quorum is not present at any meeting of the Board of Directors, the directors present thereat may adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum shall be present.

3.9 **Action Without a Meeting**. Unless otherwise restricted by the certificate of incorporation or these bylaws, any action required or permitted to be taken at any meeting of the Board of Directors or of any committee thereof may be taken without a meeting if all members of the Board of Directors or committee, as the case may be, consent thereto in writing or by electronic transmission, and the writing, writings, electronic transmission or transmissions are filed with the minutes of proceedings of the Board of Directors or committee.

3.10 **Telephonic Meetings**. Unless otherwise restricted by the certificate of incorporation or these bylaws, members of the Board of Directors or any committee designated by the Board of Directors may participate in a meeting of the Board of Directors or any committee, by means of conference telephone or other means of communication by which all persons participating in the meeting can hear each other, and such participation shall constitute presence in person at the meeting.

3.11 **Committees**. The Board of Directors may designate one or more committees, each committee to consist of one or more of the directors of the corporation. The Board of Directors may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee.

In the absence or disqualification of a member of a committee, the member or members thereof present at any meeting and not disqualified from voting, whether or not he or she or they constitute a quorum, may unanimously appoint another member of the Board of Directors to act at the meeting in the place of any such absent or disqualified member.

Any such committee, to the extent provided in the resolution of the Board of Directors, shall have and may exercise all the powers and authority of the Board of Directors in the management of the business and affairs of the corporation, and may authorize the seal of the corporation to be affixed to all papers which may require it, but no such committee shall have the power or authority in reference to the following matters: (i) approving or adopting, or recommending to the stockholders, any action or matter expressly required by the DGCL to be submitted to stockholders for approval or (ii) adopting, amending or repealing any provision of these bylaws.

3.12 **Minutes of Meetings**. Each committee shall keep regular minutes of its meetings and report the same to the Board of Directors when required.

3.13 **Compensation of Directors**. Unless otherwise restricted by the certificate of incorporation or these bylaws, the Board of Directors shall have the authority to fix the compensation of directors. The directors may be paid their expenses, if any, of attendance at each meeting of the Board of Directors and may be paid a fixed sum for attendance at each meeting of the Board of Directors or a stated salary as director. No such payment shall preclude any director from serving the corporation in any other capacity and receiving compensation therefor. Members of special or standing committees may be allowed like compensation for attending committee meetings.

3.14 **Removal of Directors**. Unless otherwise provided by the certificate of incorporation or these bylaws, any director or the entire Board of Directors may be removed, with or without cause, by the holders of a majority of shares entitled to vote at an election of directors.

ARTICLE IV
NOTICES

4.1 **Notice**. Unless otherwise provided in these bylaws, whenever, under the provisions of the statutes or of the certificate of incorporation or of these bylaws, notice is required to be given to any director or stockholder, it shall not be construed to mean personal notice, but such notice may be given in writing, by mail, addressed to such director or stockholder, at his address as it appears on the records of the corporation, with postage thereon prepaid, and such notice shall be deemed to be given at the time when the same shall be deposited in the United States mail. Notice to directors may also be given by telegram.

4.2 **Waiver of Notice**. Whenever any notice is required to be given under the provisions of the statutes or of the certificate of incorporation or of these bylaws, a waiver thereof in writing, signed by the person or persons entitled to said notice, whether before or after the time stated therein, shall be deemed equivalent thereto.

4.3 **Electronic Notice**.

(a) *Electronic Transmission*. Without limiting the manner by which notice otherwise may be given effectively to stockholders and directors, any notice to stockholders or directors given by the corporation under any provision of the DGCL, the certificate of incorporation or these bylaws shall be effective if given by a form of electronic transmission consented to by the stockholder or director to whom the notice is given. Any such consent shall be revocable by the stockholder or director by written notice to the corporation. Any such consent shall be deemed revoked if (1) the corporation is unable to deliver by electronic transmission two consecutive notices given by the corporation in accordance with such consent and (2) such inability becomes known to the secretary or an assistant secretary of the corporation or to the transfer agent, or other person responsible for the giving of notice; provided, however, the inadvertent failure to treat such inability as a revocation shall not invalidate any meeting or other action.

(b) *Effective Date of Notice.* Notice given pursuant to subsection (a) of this section shall be deemed given: (1) if by facsimile telecommunication, when directed to a number at which the stockholder or director has consented to receive notice; (2) if by electronic mail, when directed to an electronic mail address at which the stockholder or director has consented to receive notice; (3) if by a posting on an electronic network together with separate notice to the stockholder or director of such specific posting, upon the later of (i) such posting and (ii) the giving of such separate notice; and (4) if by any other form of electronic transmission, when directed to the stockholder or director. An affidavit of the secretary or an assistant secretary or of the transfer agent or other agent of the corporation that the notice has been given by a form of electronic transmission shall, in the absence of fraud, be prima facie evidence of the facts stated therein.

(c) *Form of Electronic Transmission*. For purposes of these bylaws, "electronic transmission" means any form of communication, not directly involving the physical transmission of paper, that creates a record that may be retained, retrieved, and reviewed by a recipient thereof, and that may be directly reproduced in paper form by such a recipient through an automated process.

ARTICLE V
OFFICERS

5.1 **Required and Permitted Officers**. The officers of the corporation shall be chosen by the Board of Directors and shall be a president, treasurer and a secretary. The Board of Directors may elect from among its members a Chairman of the Board and a Vice-Chairman of the Board. The Board of Directors may also choose one or more vice-presidents, assistant secretaries and assistant treasurers. Any number of offices may be held by the same person, unless the certificate of incorporation or these bylaws otherwise provide.

5.2 **Appointment of Required Officers**. The Board of Directors at its first meeting after each annual meeting of stockholders shall choose a president, a treasurer, and a secretary and may choose vice-presidents.

5.3 **Appointment of Permitted Officers**. The Board of Directors may appoint such other officers and agents as it shall deem necessary who shall hold their offices for such terms and shall exercise such powers and perform such duties as shall be determined from time to time by the Board of Directors.

5.4 **Officer Compensation**. The salaries of all officers and agents of the corporation shall be fixed by the Board of Directors.

5.5 **Term of Office; Vacancies**. The officers of the corporation shall hold office until their successors are chosen and qualify. Any officer elected or appointed by the Board of Directors may be removed at any time by the affirmative vote of a majority of the Board of Directors. Any vacancy occurring in any office of the corporation shall be filled by the Board of Directors.

THE CHAIRMAN OF THE BOARD

5.6 **Chairman Presides**. The Chairman of the Board, if any, shall preside at all meetings of the Board of Directors and of the stockholders at which he or she shall be present. He or she shall have and may exercise such powers as are, from time to time, assigned to him by the Board of Directors and as may be provided by law.

5.7 **Absence of Chairman**. In the absence of the Chairman of the Board, the Vice-Chairman of the Board, if any, shall preside at all meetings of the Board of Directors and of the stockholders at which he or she shall be present. He or she shall have and may exercise such powers as are, from time to time, assigned to him by the Board of Directors and as may be provided by law.

THE PRESIDENT AND VICE-PRESIDENTS

5.8 **Powers of President**. The president shall be the chief executive officer of the corporation; in the absence of the Chairman and Vice-Chairman of the Board he or she shall preside at all meetings of the stockholders and the Board of Directors; he or she shall have general and active management of the business of the corporation and shall see that all orders and resolutions of the Board of Directors are carried into effect.

5.9 **President's Signature Authority**. The president shall execute bonds, mortgages and other contracts requiring a seal, under the seal of the corporation, except where required or permitted by law to be otherwise signed and executed and except where the signing and execution thereof shall be expressly delegated by the Board of Directors to some other officer or agent of the corporation.

5.10 **Absence of President**. In the absence of the president or in the event of his inability or refusal to act, the vice-president, if any, (or in the event there be more than one vice-president, the vice-presidents in the order designated by the directors, or in the absence of any designation, then in the order of their election) shall perform the duties of the president, and when so acting, shall have all the powers of and be subject to all the restrictions upon the president. The vice-presidents shall perform such other duties and have such other powers as the Board of Directors may from time to time prescribe.

THE SECRETARY AND ASSISTANT SECRETARY

5.11 **Duties of Secretary**. The secretary shall attend all meetings of the Board of Directors and all meetings of the stockholders and record all the proceedings of the meetings of the corporation and of the Board of Directors in a book to be kept for that purpose and shall perform like duties for the standing committees when required. He or she shall give, or cause to be given, notice of all meetings of the stockholders and special meetings of the Board of Directors, and shall perform such other duties as may be prescribed by the Board of Directors or president, under whose supervision he or she shall be. He or she shall have custody of the corporate seal of the corporation and he or she, or an assistant secretary, shall have authority to affix the same to any instrument requiring it and when so affixed, it may be attested by his signature or by the signature of such assistant secretary. The Board of Directors may give general authority to any other officer to affix the seal of the corporation and to attest the affixing by his signature.

5.12 **Duties of Assistant Secretary**. The assistant secretary, or if there be more than one, the assistant secretaries in the order determined by the Board of Directors (or if there be no such determination, then in the order of their election) shall, in the absence of the secretary or in the event of his inability or refusal to act, perform the duties and exercise the powers of the secretary and shall perform such other duties and have such other powers as the Board of Directors may from time to time prescribe.

THE TREASURER AND ASSISTANT TREASURERS

5.13 **Duties of Treasurer**. The treasurer shall have the custody of the corporate funds and securities and shall keep full and accurate accounts of receipts and disbursements in books belonging to the corporation and shall deposit all moneys and other valuable effects in the name and to the credit of the corporation in such depositories as may be designated by the Board of Directors.

5.14 **Disbursements and Financial Reports**. He or she shall disburse the funds of the corporation as may be ordered by the Board of Directors, taking proper vouchers for such disbursements, and shall render to the president and the Board of Directors, at its regular meetings or when the Board of Directors so requires, an account of all his transactions as treasurer and of the financial condition of the corporation.

5.15 **Treasurer's Bond**. If required by the Board of Directors, the treasurer shall give the corporation a bond (which shall be renewed every six years) in such sum and with such surety or sureties as shall be satisfactory to the Board of Directors for the faithful performance of the duties of his office and for the restoration to the corporation, in case of his death, resignation, retirement or removal from office, of all books, papers, vouchers, money and other property of whatever kind in his possession or under his control belonging to the corporation.

5.16 **Duties of Assistant Treasurer**. The assistant treasurer, or if there shall be more than one, the assistant treasurers in the order determined by the Board of Directors (or if there be no such determination, then in the order of their election) shall, in the absence of the treasurer or in the event of the treasurer's inability or refusal to act, perform the duties and exercise the powers of the treasurer and shall perform such other duties and have such other powers as the Board of Directors may from time to time prescribe.

ARTICLE VI
CERTIFICATE OF STOCK

6.1 **Stock Certificates**. Every holder of stock in the corporation shall be entitled to have a certificate, signed by or in the name of the corporation by, the Chairman or Vice-Chairman of the Board of Directors, or the president or a vice-president and the treasurer or an assistant treasurer, or the secretary or an assistant secretary of the corporation, certifying the number of shares owned by him in the corporation.

Certificates may be issued for partly paid shares and in such case upon the face or back of the certificates issued to represent any such partly paid shares, the total amount of the consideration to be paid therefor, and the amount paid thereon shall be specified.

If the corporation shall be authorized to issue more than one class of stock or more than one series of any class, the powers, designations, preferences and relative participating, optional or other special rights of each class of stock or series thereof and the qualification, limitations or restrictions of such preferences and/or rights shall be set forth in full or summarized on the face or back of the certificate which the corporation shall issue to represent such class or series of stock, provided that, except as otherwise provided in Section 202 of the DGCL, in lieu of the foregoing requirements, there may be set forth on the face or back of the certificate which the corporation shall issue to represent such class or series of stock, a statement that the corporation will furnish without charge to each stockholder who so requests the powers, designations, preferences and relative participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights.

6.2 **Facsimile Signatures**. Any or all of the signatures on the certificate may be facsimile. In the event that any officer, transfer agent or registrar who has signed or whose facsimile signature has been placed upon a certificate shall have ceased to be such officer, transfer agent or registrar before such certificate is issued, the certificate may be issued by the corporation with the same effect as if such officer, transfer agent or registrar were still acting as such at the date of issue.

6.3 **Lost Certificates**. The Board of Directors may direct a new certificate or certificates to be issued in place of any certificate or certificates theretofore issued by the corporation alleged to have been lost, stolen or destroyed upon the making of an affidavit of that fact by the person claiming the certificate to be lost, stolen or destroyed. When authorizing such issuance of a new certificate or certificates, the Board of Directors may, in its discretion and as a condition precedent to the issuance, require the owner of such lost, stolen or destroyed certificate or certificates, or his legal representative, to advertise the same in such manner as it shall require and/or to give the corporation a bond in such sum as it may direct as indemnity against any claim that may be made against the corporation with respect to the certificate alleged to have been lost, stolen or destroyed.

6.4 **Transfer of Stock**. Upon surrender to the corporation or the transfer agent of the corporation of a certificate for shares duly endorsed or accompanied by proper evidence of succession, assignation or authority to transfer, it shall be the duty of the corporation to issue a new certificate to the person entitled thereto, cancel the old certificate and record the transaction upon its books.

6.5 **Fixing a Record Date**. In order that the corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof, or to express consent to corporate action in writing without a meeting, or entitled to receive payment of any dividend or other distribution or allotment of any rights, or entitled to exercise any rights in respect of any change, conversion or exchange of stock or for the purpose of any other lawful action, the Board of Directors may fix a record date which shall not be more than sixty (60) nor less than ten (10) days before the date of such meeting, nor more than sixty (60) days prior to any other action. A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; provided, however, that the Board of Directors may fix a new record date for the adjourned meeting.

6.6 **Registered Stockholders**. The corporation shall be entitled to recognize the exclusive right of a person registered on its books as the owner of shares to receive dividends, to vote as such owner, to hold liable for calls and assessments a person registered on its books as the owner of shares and shall not be bound to recognize any equitable or other claim to or interest in such share or shares on the part of any other person, whether or not it shall have express or other notice thereof, except as otherwise provided by the laws of Delaware.

ARTICLE VII
GENERAL PROVISIONS

7.1 **Dividends**. Dividends upon the capital stock of the corporation, if any, subject to the provisions of the certificate of incorporation, may be declared by the Board of Directors at any regular or special meeting, pursuant to law. Dividends may be paid in cash, in property or in shares of the capital stock, subject to the provisions of the certificate of incorporation.

7.2 **Reserve for Dividends**. Before payment of any dividend, there may be set aside out of any funds of the corporation available for dividends such sum or sums as the directors from time to time, in their sole discretion, think proper as a reserve or reserves to meet contingencies, or for equalizing dividends, or for repairing or maintaining any property of the corporation, or for such other purposes as the directors think conducive to the interests of the corporation, and the directors may modify or abolish any such reserve in the manner in which it was created.

7.3 **Checks**. All checks or demands for money and notes of the corporation shall be signed by such officer or officers or such other person or persons as the Board of Directors may from time to time designate.

7.4 **Fiscal Year**. The fiscal year of the corporation shall be fixed by resolution of the Board of Directors.

7.5 **Corporate Seal**. The Board of Directors may adopt a corporate seal having inscribed thereon the name of the corporation, the year of its organization and the words “Corporate Seal, Delaware.” The seal may be used by causing it or a facsimile thereof to be impressed or affixed or otherwise reproduced.

7.6 **Indemnification**. The corporation shall, to the fullest extent authorized under the laws of the State of Delaware, as those laws may be amended and supplemented from time to time, indemnify any director made, or threatened to be made, a party to an action or proceeding, whether criminal, civil, administrative or investigative, by reason of being a director of the corporation or a predecessor corporation or a director or officer of another corporation, if such person served in such position at the request of the corporation; provided, however, that the corporation shall indemnify any such director or officer in connection with a proceeding initiated by such director or officer only if such proceeding was authorized by the Board of Directors of the corporation. The indemnification provided for in this Section 7.6 shall: (i) not be deemed

exclusive of any other rights to which those indemnified may be entitled under these bylaws, agreement or vote of stockholders or disinterested directors or otherwise, both as to action in their official capacities and as to action in another capacity while holding such office, (ii) continue as to a person who has ceased to be a director, and (iii) inure to the benefit of the heirs, executors and administrators of a person who has ceased to be a director. The corporation's obligation to provide indemnification under this Section 7.6 shall be offset to the extent of any other source of indemnification or any otherwise applicable insurance coverage under a policy maintained by the corporation or any other person.

Expenses incurred by a director of the corporation in defending a civil or criminal action, suit or proceeding by reason of the fact that he or she is or was a director of the corporation (or was serving at the corporation's request as a director or officer of another corporation) shall be paid by the corporation in advance of the final disposition of such action, suit or proceeding upon receipt of an undertaking by or on behalf of such director to repay such amount if it shall ultimately be determined that he or she is not entitled to be indemnified by the corporation as authorized by relevant sections of the DGCL. Notwithstanding the foregoing, the corporation shall not be required to advance such expenses to an agent who is a party to an action, suit or proceeding brought by the corporation and approved by a majority of the Board of Directors of the corporation that alleges willful misappropriation of corporate assets by such agent, disclosure of confidential information in violation of such agent's fiduciary or contractual obligations to the corporation or any other willful and deliberate breach in bad faith of such agent's duty to the corporation or its stockholders.

The foregoing provisions of this Section 7.6 shall be deemed to be a contract between the corporation and each director who serves in such capacity at any time while this bylaw is in effect, and any repeal or modification thereof shall not affect any rights or obligations then existing with respect to any state of facts then or theretofore existing or any action, suit or proceeding theretofore or thereafter brought based in whole or in part upon any such state of facts.

The Board of Directors in its sole discretion shall have power on behalf of the corporation to indemnify any person, other than a director, made a party to any action, suit or proceeding by reason of the fact that he or she, his testator or intestate, is or was an officer or employee of the corporation.

To assure indemnification under this Section 7.6 of all directors, officers and employees who are determined by the corporation or otherwise to be or to have been "fiduciaries" of any employee benefit plan of the corporation that may exist from time to time, Section 145 of the DGCL shall, for the purposes of this Section 7.6, be interpreted as follows: an "other enterprise" shall be deemed to include such an employee benefit plan, including without limitation, any plan of the corporation that is governed by the Act of Congress entitled "Employee Retirement Income Security Act of 1974," as amended from time to time; the corporation shall be deemed to have requested a person to serve the corporation for purposes of Section 145 of the DGCL, as administrator of an employee benefit plan where the performance by such person of his duties to the corporation also imposes duties on, or otherwise involves services by, such person to the plan or participants or beneficiaries of the plan; excise taxes assessed on a person with respect to an employee benefit plan pursuant to such Act of Congress shall be deemed "fines."

CERTIFICATE OF INCORPORATION GOVERNS

7.7 **Conflicts with Certificate of Incorporation**. In the event of any conflict between the provisions of the corporation's certificate of incorporation and these bylaws, the provisions of the certificate of incorporation shall govern.

ARTICLE VIII
AMENDMENTS

8.1 These bylaws may be altered, amended or repealed, or new bylaws may be adopted by the stockholders or by the Board of Directors, when such power is conferred upon the Board of Directors by the certificate of incorporation at any regular meeting of the stockholders or of the Board of Directors or at any special meeting of the stockholders or of the Board of Directors if notice of such alteration, amendment, repeal or adoption of new bylaws be contained in the notice of such special meeting. If the power to adopt, amend or repeal bylaws is conferred upon the Board of Directors by the certificate of incorporation, it shall not divest or limit the power of the stockholders to adopt, amend or repeal bylaws.

ARTICLE IX
LOANS TO OFFICERS

9.1 The corporation may lend money to, or guarantee any obligation of or otherwise assist any officer or other employee of the corporation or of its subsidiaries, including any officer or employee who is a director of the corporation or its subsidiaries, whenever, in the judgment of the Board of Directors, such loan, guarantee or assistance may reasonably be expected to benefit the corporation. The loan, guarantee or other assistance may be with or without interest and may be unsecured or secured in such manner as the Board of Directors shall approve, including, without limitation, a pledge of shares of stock of the corporation. Nothing in these bylaws shall be deemed to deny, limit or restrict the powers of guaranty or warranty of the corporation at common law or under any statute.

ARTICLE X
RECORDS AND REPORTS

10.1 The application and requirements of Section 1501 of the California General Corporation Law are hereby expressly waived to the fullest extent permitted thereunder.

AMENDED AND RESTATED BYLAWS

OF

ATARA BIOTHERAPEUTICS, INC. (A DELAWARE CORPORATION)

ARTICLE I

OFFICES

Section 1. Registered Office. The registered office of the corporation in the State of Delaware shall be in the City of Dover, County of Kent.

Section 2. Other Offices. The corporation shall also have and maintain an office or principal place of business at such place as may be fixed by the Board of Directors, and may also have offices at such other places, both within and without the State of Delaware as the Board of Directors may from time to time determine or the business of the corporation may require.

ARTICLE II

CORPORATE SEAL

Section 3. Corporate Seal. The Board of Directors may adopt a corporate seal. The corporate seal shall consist of a die bearing the name of the corporation and the inscription, "Corporate Seal-Delaware." Said seal may be used by causing it or a facsimile thereof to be impressed or affixed or reproduced or otherwise.

ARTICLE III

STOCKHOLDERS' MEETINGS

Section 4. Place of Meetings. Meetings of the stockholders of the corporation may be held at such place, either within or without the State of Delaware, as may be determined from time to time by the Board of Directors. The Board of Directors may, in its sole discretion, determine that the meeting shall not be held at any place, but may instead be held solely by means of remote communication as provided under the Delaware General Corporation Law ("***DGCL***").

Section 5. Annual Meetings.

(a) The annual meeting of the stockholders of the corporation, for the purpose of election of directors and for such other business as may properly come before it, shall be held on such date and at such time as may be designated from time to time by the Board of Directors. Nominations of persons for election to the Board of Directors of the corporation and the proposal of business to be considered by the stockholders may be made at an annual meeting of stockholders: (i) pursuant to the corporation's notice of meeting of stockholders (with respect to business other than nominations); (ii) brought specifically by or at the direction of the Board of Directors; or (iii) by any stockholder of the corporation who was a stockholder of record at the time of giving the stockholder's notice provided for in Section 5(b) below, who is entitled to vote at the meeting and who complied with the notice procedures

set forth in Section 5. For the avoidance of doubt, clause (iii) above shall be the exclusive means for a stockholder to make nominations and submit other business (other than matters properly included in the corporation's notice of meeting of stockholders and proxy statement under Rule 14a-8 under the Securities Exchange Act of 1934, as amended, and the rules and regulations thereunder (the "***1934 Act***")) before an annual meeting of stockholders.

(b) At an annual meeting of the stockholders, only such business shall be conducted as is a proper matter for stockholder action under Delaware law and as shall have been properly brought before the meeting.

(i) For nominations for the election to the Board of Directors to be properly brought before an annual meeting by a stockholder pursuant to clause (iii) of Section 5(a) of these Bylaws, the stockholder must deliver written notice to the Secretary at the principal executive offices of the corporation on a timely basis as set forth in Section 5(b)(iii) and must update and supplement such written notice on a timely basis as set forth in Section 5(c). Such stockholder's notice shall set forth: (A) as to each nominee such stockholder proposes to nominate at the meeting: (1) the name, age, business address and residence address of such nominee, (2) the principal occupation or employment of such nominee, (3) the class and number of shares of each class of capital stock of the corporation which are owned of record and beneficially by such nominee, (4) the date or dates on which such shares were acquired and the investment intent of such acquisition, (5) such other information concerning such nominee as would be required to be disclosed in a proxy statement soliciting proxies for the election of such nominee as a director in an election contest (even if an election contest is not involved), or that is otherwise required to be disclosed pursuant to Section 14 of the 1934 Act and the rules and regulations promulgated thereunder (including such person's written consent to being named as a nominee and to serving as a director if elected); and (B) the information required by Section 5(b)(iv). The corporation may require any proposed nominee to furnish such other information as it may reasonably require to determine the eligibility of such proposed nominee to serve as an independent director of the corporation or that could be material to a reasonable stockholder's understanding of the independence, or lack thereof, of such proposed nominee.

(ii) Other than proposals sought to be included in the corporation's proxy materials pursuant to Rule 14(a)-8 under the 1934 Act, for business other than nominations for the election to the Board of Directors to be properly brought before an annual meeting by a stockholder pursuant to clause (iii) of Section 5(a) of these Bylaws, the stockholder must deliver written notice to the Secretary at the principal executive offices of the corporation on a timely basis as set forth in Section 5(b)(iii), and must update and supplement such written notice on a timely basis as set forth in Section 5(c). Such stockholder's notice shall set forth: (A) as to each matter such stockholder proposes to bring before the meeting, a brief description of the business desired to be brought before the meeting, the reasons for conducting such business at the meeting, and any material interest (including any anticipated benefit of such business to any Proponent (as defined below) other than solely as a result of its ownership of the corporation's capital stock, that is material to any Proponent individually, or to the Proponents in the aggregate) in such business of any Proponent; and (B) the information required by Section 5(b)(iv).

(iii) To be timely, the written notice required by Section 5(b)(i) or 5(b)(ii) must be received by the Secretary at the principal executive offices of the corporation not later than the close of business on the 90th day nor earlier than the close of business on the 120th day prior to the first anniversary of the preceding year's annual meeting; *provided, however*, that, subject to the last sentence of this Section 5(b)(iii), in the event that the date of the annual meeting is advanced more than 30 days prior to or delayed by more than 30 days after the anniversary of the preceding year's annual meeting, notice by the stockholder to be timely must be so received not earlier than the close of business on the 120th day prior to such annual meeting and not later than the close of business on the later of the 90th day

prior to such annual meeting or the 10th day following the day on which public announcement of the date of such meeting is first made. In no event shall an adjournment or a postponement of an annual meeting for which notice has been given, or the public announcement thereof has been made, commence a new time period for the giving of a stockholder's notice as described above.

(iv) The written notice required by Section 5(b)(i) or 5(b)(ii) shall also set forth, as of the date of the notice and as to the stockholder giving the notice and the beneficial owner, if any, on whose behalf the nomination or proposal is made (each, a "***Proponent***" and collectively, the "***Proponents***"): (A) the name and address of each Proponent, as they appear on the corporation's books; (B) the class, series and number of shares of the corporation that are owned beneficially and of record by each Proponent; (C) a description of any agreement, arrangement or understanding (whether oral or in writing) with respect to such nomination or proposal between or among any Proponent and any of its affiliates or associates, and any others (including their names) acting in concert, or otherwise under the agreement, arrangement or understanding, with any of the foregoing; (D) a representation that the Proponents are holders of record or beneficial owners, as the case may be, of shares of the corporation entitled to vote at the meeting and intend to appear in person or by proxy at the meeting to nominate the person or persons specified in the notice (with respect to a notice under Section 5(b)(i)) or to propose the business that is specified in the notice (with respect to a notice under Section 5(b)(ii)); (E) a representation as to whether the Proponents intend to deliver a proxy statement and form of proxy to holders of a sufficient number of holders of the corporation's voting shares to elect such nominee or nominees (with respect to a notice under Section 5(b)(i)) or to carry such proposal (with respect to a notice under Section 5(b)(ii)); (F) to the extent known by any Proponent, the name and address of any other stockholder supporting the proposal on the date of such stockholder's notice; and (G) a description of all Derivative Transactions (as defined below) by each Proponent during the previous 12-month period, including the date of the transactions and the class, series and number of securities involved in, and the material economic terms of, such Derivative Transactions.

For purposes of Sections 5 and 6, a "***Derivative Transaction***" means any agreement, arrangement, interest or understanding entered into by, or on behalf or for the benefit of, any Proponent or any of its affiliates or associates, whether record or beneficial: (w) the value of which is derived in whole or in part from the value of any class or series of shares or other securities of the corporation, (x) which otherwise provides any direct or indirect opportunity to gain or share in any gain derived from a change in the value of securities of the corporation, (y) the effect or intent of which is to mitigate loss, manage risk or benefit of security value or price changes, or (z) which provides the right to vote or increase or decrease the voting power of, such Proponent, or any of its affiliates or associates, with respect to any securities of the corporation, which agreement, arrangement, interest or understanding may include, without limitation, any option, warrant, debt position, note, bond, convertible security, swap, stock appreciation right, short position, profit interest, hedge, right to dividends, voting agreement, performance-related fee or arrangement to borrow or lend shares (whether or not subject to payment, settlement, exercise or conversion in any such class or series), and any proportionate interest of such Proponent in the securities of the corporation held by any general or limited partnership, or any limited liability company, of which such Proponent is, directly or indirectly, a general partner or managing member.

(c) A stockholder providing written notice required by Section 5(b)(i) or (ii) shall update and supplement such notice in writing, if necessary, so that the information provided or required to be provided in such notice is true and correct in all material respects as of (i) the record date for the meeting and (ii) the date that is five business days prior to the meeting and, in the event of any adjournment or postponement thereof, five business days prior to such adjourned or postponed meeting. In the case of an update and supplement pursuant to clause (i) of this Section 5(c), such update and supplement shall be received by the Secretary at the principal executive offices of the corporation not later than five business days after the record date for the meeting. In the case of an update and

supplement pursuant to clause (ii) of this Section 5(c), such update and supplement shall be received by the Secretary at the principal executive offices of the corporation not later than two business days prior to the date for the meeting, and, in the event of any adjournment or postponement thereof, two business days prior to such adjourned or postponed meeting.

(d) Notwithstanding anything in Section 5(b)(iii) to the contrary, in the event that the number of directors in an Expiring Class is increased and there is no public announcement of the appointment of a director to such class, or, if no appointment was made, of the vacancy in such class, made by the corporation at least 10 days before the last day a stockholder may deliver a notice of nomination in accordance with Section 5(b)(iii), a stockholder's notice required by this Section 5 and which complies with the requirements in Section 5(b)(i), other than the timing requirements in Section 5(b)(iii), shall also be considered timely, but only with respect to nominees for any new positions in such Expiring Class created by such increase, if it shall be received by the Secretary at the principal executive offices of the corporation not later than the close of business on the 10th day following the day on which such public announcement is first made by the corporation. For purposes of this section, an "***Expiring Class***" shall mean a class of directors whose term shall expire at the next annual meeting of stockholders.

(e) A person shall not be eligible for election or re-election as a director unless the person is nominated either in accordance with clause (ii) of Section 5(a), or in accordance with clause (iii) of Section 5(a). Except as otherwise required by law, the chairman of the meeting shall have the power and duty to determine whether a nomination or any business proposed to be brought before the meeting was made, or proposed, as the case may be, in accordance with the procedures set forth in these Bylaws and, if any proposed nomination or business is not in compliance with these Bylaws, or the Proponent does not act in accordance with the representations in Sections 5(b)(iv)(D) and 5(b)(iv)(E), to declare that such proposal or nomination shall not be presented for stockholder action at the meeting and shall be disregarded, notwithstanding that proxies in respect of such nominations or such business may have been solicited or received.

(f) Notwithstanding the foregoing provisions of this Section 5, in order to include information with respect to a stockholder proposal in the proxy statement and form of proxy for a stockholders' meeting, a stockholder must also comply with all applicable requirements of the 1934 Act and the rules and regulations thereunder. Nothing in these Bylaws shall be deemed to affect any rights of stockholders to request inclusion of proposals in the corporation's proxy statement pursuant to Rule 14a-8 under the 1934 Act; *provided, however*, that any references in these Bylaws to the 1934 Act or the rules and regulations thereunder are not intended to and shall not limit the requirements applicable to proposals and/or nominations to be considered pursuant to Section 5(a)(iii) of these Bylaws.

(g) For purposes of Sections 5 and 6,

(i) "public announcement" shall mean disclosure in a press release reported by the Dow Jones News Service, Associated Press or comparable national news service or in a document publicly filed by the corporation with the Securities and Exchange Commission pursuant to Section 13, 14 or 15(d) of the 1934 Act; and

(ii) "affiliates" and "associates" shall have the meanings set forth in Rule 405 under the Securities Act of 1933, as amended (the "***1933 Act***").

Section 6. Special Meetings.

(a) Special meetings of the stockholders of the corporation may be called, for any purpose as is a proper matter for stockholder action under Delaware law, by (i) the Chairman of the Board of Directors, (ii) the Chief Executive Officer, or (iii) the Board of Directors pursuant to a resolution adopted by a majority of the total number of authorized directors (whether or not there exist any vacancies in previously authorized directorships at the time any such resolution is presented to the Board of Directors for adoption).

(b) The Board of Directors shall determine the time and place, if any, of such special meeting. Upon determination of the time and place, if any, of the meeting, the Secretary shall cause a notice of meeting to be given to the stockholders entitled to vote, in accordance with the provisions of Section 7 of these Bylaws. No business may be transacted at such special meeting otherwise than specified in the notice of meeting.

(c) Nominations of persons for election to the Board of Directors may be made at a special meeting of stockholders at which directors are to be elected (i) by or at the direction of the Board of Directors or (ii) by any stockholder of the corporation who is a stockholder of record at the time of giving notice provided for in this paragraph, who shall be entitled to vote at the meeting and who delivers written notice to the Secretary of the corporation setting forth the information required by Section 5(b)(i). In the event the corporation calls a special meeting of stockholders for the purpose of electing one or more directors to the Board of Directors, any such stockholder of record may nominate a person or persons (as the case may be), for election to such position(s) as specified in the corporation's notice of meeting, if written notice setting forth the information required by Section 5(b)(i) of these Bylaws shall be received by the Secretary at the principal executive offices of the corporation not later than the close of business on the later of the 90th day prior to such meeting or the 10th day following the day on which public announcement is first made of the date of the special meeting and of the nominees proposed by the Board of Directors to be elected at such meeting. The stockholder shall also update and supplement such information as required under Section 5(c). In no event shall an adjournment or a postponement of a special meeting for which notice has been given, or the public announcement thereof has been made, commence a new time period for the giving of a stockholder's notice as described above.

(d) Notwithstanding the foregoing provisions of this Section 6, a stockholder must also comply with all applicable requirements of the 1934 Act and the rules and regulations thereunder with respect to matters set forth in this Section 6. Nothing in these Bylaws shall be deemed to affect any rights of stockholders to request inclusion of proposals in the corporation's proxy statement pursuant to Rule 14a-8 under the 1934 Act; *provided, however*, that any references in these Bylaws to the 1934 Act or the rules and regulations thereunder are not intended to and shall not limit the requirements applicable to nominations for the election to the Board of Directors to be considered pursuant to Section 6(c) of these Bylaws.

Section 7. Notice of Meetings. Except as otherwise provided by law, notice, given in writing or by electronic transmission, of each meeting of stockholders shall be given not less than 10 nor more than 60 days before the date of the meeting to each stockholder entitled to vote at such meeting, such notice to specify the place, if any, date and hour, in the case of special meetings, the purpose or purposes of the meeting, and the means of remote communications, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at any such meeting. If mailed, notice is given when deposited in the United States mail, postage prepaid, directed to the stockholder at such stockholder's address as it appears on the records of the corporation. Notice of the time, place, if any, and purpose of any meeting of stockholders may be waived in writing, signed by the person entitled to notice thereof, or by electronic transmission by such person, either before or after such meeting, and will be waived by any stockholder by his attendance thereat in person, by remote communication, if applicable, or by proxy, except when the stockholder attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Any stockholder so waiving notice of such meeting shall be bound by the proceedings of any such meeting in all respects as if due notice thereof had been given.

Section 8. Quorum. At all meetings of stockholders, except where otherwise provided by statute or by the Certificate of Incorporation, or by these Bylaws, the presence, in person, by remote communication, if applicable, or by proxy duly authorized, of the holders of a majority of the outstanding shares of stock entitled to vote shall constitute a quorum for the transaction of business. In the absence of a quorum, any meeting of stockholders may be adjourned, from time to time, either by the chairman of the meeting or by vote of the holders of a majority of the shares represented thereat, but no other business shall be transacted at such meeting. The stockholders present at a duly called or convened meeting, at which a quorum is present, may continue to transact business until adjournment, notwithstanding the withdrawal of enough stockholders to leave less than a quorum. Except as otherwise provided by statute or by applicable stock exchange rules, or by the Certificate of Incorporation or these Bylaws, in all matters other than the election of directors, the affirmative vote of the majority of shares present in person, by remote communication, if applicable, or represented by proxy at the meeting and entitled to vote generally on the subject matter shall be the act of the stockholders. Except as otherwise provided by statute, the Certificate of Incorporation or these Bylaws, directors shall be elected by a plurality of the votes of the shares present in person, by remote communication, if applicable, or represented by proxy at the meeting and entitled to vote generally on the election of directors. Where a separate vote by a class or classes or series is required, except where otherwise provided by the statute or by the Certificate of Incorporation or these Bylaws, a majority of the outstanding shares of such class or classes or series, present in person, by remote communication, if applicable, or represented by proxy duly authorized, shall constitute a quorum entitled to take action with respect to that vote on that matter. Except where otherwise provided by statute or by the Certificate of Incorporation or these Bylaws, the affirmative vote of the majority (plurality, in the case of the election of directors) of shares of such class or classes or series present in person, by remote communication, if applicable, or represented by proxy at the meeting shall be the act of such class or classes or series.

Section 9. Adjournment and Notice of Adjourned Meetings. Any meeting of stockholders, whether annual or special, may be adjourned from time to time either by the chairman of the meeting or by the vote of a majority of the shares present in person, by remote communication, if applicable, or represented by proxy at the meeting. When a meeting is adjourned to another time or place, if any, notice need not be given of the adjourned meeting if the time and place, if any, thereof are announced at the meeting at which the adjournment is taken. At the adjourned meeting, the corporation may transact any business which might have been transacted at the original meeting. If the adjournment is for more than 30 days or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting.

Section 10. Voting Rights. For the purpose of determining those stockholders entitled to vote at any meeting of the stockholders, except as otherwise provided by law, only persons in whose names shares stand on the stock records of the corporation on the record date, as provided in Section 12 of these Bylaws, shall be entitled to vote at any meeting of stockholders. Every person entitled to vote shall have the right to do so either in person, by remote communication, if applicable, or by an agent or agents authorized by a proxy granted in accordance with Delaware law. An agent so appointed need not be a stockholder. No proxy shall be voted after three years from its date of creation unless the proxy provides for a longer period.

Section 11. Joint Owners of Stock. If shares or other securities having voting power stand of record in the names of two or more persons, whether fiduciaries, members of a partnership, joint tenants, tenants in common, tenants by the entirety, or otherwise, or if two or more persons have the same

fiduciary relationship respecting the same shares, unless the Secretary is given written notice to the contrary and is furnished with a copy of the instrument or order appointing them or creating the relationship wherein it is so provided, their acts with respect to voting shall have the following effect: (a) if only one votes, his act binds all; (b) if more than one votes, the act of the majority so voting binds all; (c) if more than one votes, but the vote is evenly split on any particular matter, each faction may vote the securities in question proportionally, or may apply to the Delaware Court of Chancery for relief as provided in the DGCL, Section 217(b). If the instrument filed with the Secretary shows that any such tenancy is held in unequal interests, a majority or even-split for the purpose of subsection (c) shall be a majority or even-split in interest.

Section 12. List of Stockholders. The Secretary shall prepare and make, at least 10 days before every meeting of stockholders, a complete list of the stockholders entitled to vote at said meeting, arranged in alphabetical order, showing the address of each stockholder and the number of shares registered in the name of each stockholder. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting, (a) on a reasonably accessible electronic network, provided that the information required to gain access to such list is provided with the notice of the meeting, or (b) during ordinary business hours, at the principal place of business of the corporation. In the event that the corporation determines to make the list available on an electronic network, the corporation may take reasonable steps to ensure that such information is available only to stockholders of the corporation. The list shall be open to examination of any stockholder during the time of the meeting as provided by law.

Section 13. Action Without Meeting. No action shall be taken by the stockholders except at an annual or special meeting of stockholders called in accordance with these Bylaws, and no action shall be taken by the stockholders by written consent or by electronic transmission.

Section 14. Organization.

(a) At every meeting of stockholders, the Chairman of the Board of Directors, or, if a Chairman has not been appointed or is absent, the President, or, if the President is absent, a chairman of the meeting chosen by a majority in interest of the stockholders entitled to vote, present in person or by proxy, shall act as chairman. The Secretary, or, in his or her absence, an Assistant Secretary directed to do so by the President, shall act as secretary of the meeting.

(b) The Board of Directors of the corporation shall be entitled to make such rules or regulations for the conduct of meetings of stockholders as it shall deem necessary, appropriate or convenient. Subject to such rules and regulations of the Board of Directors, if any, the chairman of the meeting shall have the right and authority to prescribe such rules, regulations and procedures and to do all such acts as, in the judgment of such chairman, are necessary, appropriate or convenient for the proper conduct of the meeting, including, without limitation, establishing an agenda or order of business for the meeting, rules and procedures for maintaining order at the meeting and the safety of those present, limitations on participation in such meeting to stockholders of record of the corporation and their duly authorized and constituted proxies and such other persons as the chairman shall permit, restrictions on entry to the meeting after the time fixed for the commencement thereof, limitations on the time allotted to questions or comments by participants and regulation of the opening and closing of the polls for balloting on matters which are to be voted on by ballot. The date and time of the opening and closing of the polls for each matter upon which the stockholders will vote at the meeting shall be announced at the meeting. Unless and to the extent determined by the Board of Directors or the chairman of the meeting, meetings of stockholders shall not be required to be held in accordance with rules of parliamentary procedure.

ARTICLE IV

DIRECTORS

Section 15. Number and Term of Office. The authorized number of directors of the corporation shall be fixed in accordance with the Certificate of Incorporation. Directors need not be stockholders unless so required by the Certificate of Incorporation. If for any cause, the directors shall not have been elected at an annual meeting, they may be elected as soon thereafter as convenient at a special meeting of the stockholders called for that purpose in the manner provided in these Bylaws.

Section 16. Powers. The business and affairs of the corporation shall be managed by or under the direction of the Board of Directors, except as may be otherwise provided by statute or by the Certificate of Incorporation.

Section 17. Classes of Directors. Subject to the rights of the holders of any series of Preferred Stock to elect additional directors under specified circumstances, the directors shall be divided into three classes designated as Class I, Class II and Class III, respectively. The Board of Directors is authorized to assign members of the Board of Directors already in office to such classes at the time the classification becomes effective. At the first annual meeting of stockholders following the initial classification of the Board of Directors, the term of office of the Class I directors shall expire and Class I directors shall be elected for a full term of three years. At the second annual meeting of stockholders following such initial classification, the term of office of the Class II directors shall expire and Class II directors shall be elected for a full term of three years. At the third annual meeting of stockholders following such initial classification, the term of office of the Class III directors shall expire and Class III directors shall be elected for a full term of three years. At each succeeding annual meeting of stockholders, directors shall be elected for a full term of three years to succeed the directors of the class whose terms expire at such annual meeting. Notwithstanding the foregoing provisions of this section, each director shall serve until his successor is duly elected and qualified or until his earlier death, resignation or removal. No decrease in the number of directors constituting the Board of Directors shall shorten the term of any incumbent director.

Section 18. Vacancies. Unless otherwise provided in the Certificate of Incorporation, and subject to the rights of the holders of any series of Preferred Stock, any vacancies on the Board of Directors resulting from death, resignation, disqualification, removal or other causes and any newly created directorships resulting from any increase in the number of directors shall, unless the Board of Directors determines by resolution that any such vacancies or newly created directorships shall be filled by stockholders, be filled only by the affirmative vote of a majority of the directors then in office, even though less than a quorum of the Board of Directors, or by a sole remaining director, and not by the stockholders, *provided, however*, that whenever the holders of any class or classes of stock or series thereof are entitled to elect one or more directors by the provisions of the Certificate of Incorporation, vacancies and newly created directorships of such class or classes or series shall, unless the Board of Directors determines by resolution that any such vacancies or newly created directorships shall be filled by stockholders, be filled by a majority of the directors elected by such class or classes or series thereof then in office, or by a sole remaining director so elected, and not by the stockholders. Any director elected in accordance with the preceding sentence shall hold office for the remainder of the full term of the director for which the vacancy was created or occurred and until such director's successor shall have been elected and qualified. A vacancy in the Board of Directors shall be deemed to exist under this Bylaw in the case of the death, removal or resignation of any director.

Section 19. Resignation. Any director may resign at any time by delivering his or her notice in writing or by electronic transmission to the Secretary, such resignation to specify whether it will be effective at a particular time. If no such specification is made, it shall be deemed effective at the time of delivery to the Secretary. When one or more directors shall resign from the Board of Directors, effective at a future date, a majority of the directors then in office, including those who have so resigned, shall have power to fill such vacancy or vacancies, the vote thereon to take effect when such resignation or resignations shall become effective, and each Director so chosen shall hold office for the unexpired portion of the term of the Director whose place shall be vacated and until his successor shall have been duly elected and qualified.

Section 20. Removal.

(a) Subject to the rights of any series of Preferred Stock to elect additional directors under specified circumstances, neither the Board of Directors nor any individual director may be removed without cause.

(b) Subject to any limitation imposed by law, any individual director or directors may be removed with cause by the affirmative vote of the holders of 66 2/3% of the voting power of all then outstanding shares of capital stock of the corporation entitled to vote generally at an election of directors.

Section 21. Meetings.

(a) Regular Meetings. Unless otherwise restricted by the Certificate of Incorporation, regular meetings of the Board of Directors may be held at any time or date and at any place within or without the State of Delaware which has been designated by the Board of Directors and publicized among all directors, either orally or in writing, by telephone, including a voice-messaging system or other system designed to record and communicate messages, facsimile, telegraph or telex, or by electronic mail or other electronic means. No further notice shall be required for regular meetings of the Board of Directors.

(b) Special Meetings. Unless otherwise restricted by the Certificate of Incorporation, special meetings of the Board of Directors may be held at any time and place within or without the State of Delaware whenever called by the Chairman of the Board, the Chief Executive Officer or a majority of the authorized number of directors.

(c) Meetings by Electronic Communications Equipment. Any member of the Board of Directors, or of any committee thereof, may participate in a meeting by means of conference telephone or other communications equipment by means of which all persons participating in the meeting can hear each other, and participation in a meeting by such means shall constitute presence in person at such meeting.

(d) Notice of Special Meetings. Notice of the time and place of all special meetings of the Board of Directors shall be orally or in writing, by telephone, including a voice messaging system or other system or technology designed to record and communicate messages, facsimile, telegraph or telex, or by electronic mail or other electronic means, during normal business hours, at least 24 hours before the date and time of the meeting. If notice is sent by US mail, it shall be sent by first class mail, charges prepaid, at least three days before the date of the meeting. Notice of any meeting may be waived in writing, or by electronic transmission, at any time before or after the meeting and will be waived by any director by attendance thereat, except when the director attends the meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened.

(e) Waiver of Notice. The transaction of all business at any meeting of the Board of Directors, or any committee thereof, however called or noticed, or wherever held, shall be as valid as though it had been transacted at a meeting duly held after regular call and notice, if a quorum be present and if, either before or after the meeting, each of the directors not present who did not receive notice shall sign a written waiver of notice or shall waive notice by electronic transmission. All such waivers shall be filed with the corporate records or made a part of the minutes of the meeting.

Section 22. Quorum and Voting.

(a) Unless the Certificate of Incorporation requires a greater number, and except with respect to questions related to indemnification arising under Section 44, for which a quorum shall be one-third of the exact number of directors fixed from time to time, a quorum of the Board of Directors shall consist of a majority of the exact number of directors fixed from time to time by the Board of Directors in accordance with the Certificate of Incorporation; *provided, however*, at any meeting whether a quorum be present or otherwise, a majority of the directors present may adjourn from time to time until the time fixed for the next regular meeting of the Board of Directors, without notice other than by announcement at the meeting.

(b) At each meeting of the Board of Directors at which a quorum is present, all questions and business shall be determined by the affirmative vote of a majority of the directors present, unless a different vote be required by law, the Certificate of Incorporation or these Bylaws.

Section 23. Action Without Meeting. Unless otherwise restricted by the Certificate of Incorporation or these Bylaws, any action required or permitted to be taken at any meeting of the Board of Directors or of any committee thereof may be taken without a meeting, if all members of the Board of Directors or committee, as the case may be, consent thereto in writing or by electronic transmission, and such writing or writings or transmission or transmissions are filed with the minutes of proceedings of the Board of Directors or committee. Such filing shall be in paper form if the minutes are maintained in paper form and shall be in electronic form if the minutes are maintained in electronic form.

Section 24. Fees and Compensation. Directors shall be entitled to such compensation for their services as may be approved by the Board of Directors, including, if so approved, by resolution of the Board of Directors, a fixed sum and expenses of attendance, if any, for attendance at each regular or special meeting of the Board of Directors and at any meeting of a committee of the Board of Directors. Nothing herein contained shall be construed to preclude any director from serving the corporation in any other capacity as an officer, agent, employee, or otherwise and receiving compensation therefor.

Section 25. Committees.

(a) Executive Committee. The Board of Directors may appoint an Executive Committee to consist of one or more members of the Board of Directors. The Executive Committee, to the extent permitted by law and provided in the resolution of the Board of Directors shall have and may exercise all the powers and authority of the Board of Directors in the management of the business and affairs of the corporation, and may authorize the seal of the corporation to be affixed to all papers which may require it; but no such committee shall have the power or authority in reference to (i) approving or adopting, or recommending to the stockholders, any action or matter (other than the election or removal of directors) expressly required by the DGCL to be submitted to stockholders for approval, or (ii) adopting, amending or repealing any Bylaw of the corporation.

(b) Other Committees. The Board of Directors may, from time to time, appoint such other committees as may be permitted by law. Such other committees appointed by the Board of Directors shall consist of one or more members of the Board of Directors and shall have such powers and perform such duties as may be prescribed by the resolution or resolutions creating such committees, but in no event shall any such committee have the powers denied to the Executive Committee in these Bylaws.

(c) Term. The Board of Directors, subject to any requirements of any outstanding series of Preferred Stock and the provisions of subsections (a) or (b) of this Section 25, may at any time increase or decrease the number of members of a committee or terminate the existence of a committee. The membership of a committee member shall terminate on the date of his death or voluntary resignation from the committee or from the Board of Directors. The Board of Directors may at any time for any reason remove any individual committee member and the Board of Directors may fill any committee vacancy created by death, resignation, removal or increase in the number of members of the committee. The Board of Directors may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee, and, in addition, in the absence or disqualification of any member of a committee, the member or members thereof present at any meeting and not disqualified from voting, whether or not he or they constitute a quorum, may unanimously appoint another member of the Board of Directors to act at the meeting in the place of any such absent or disqualified member.

(d) Meetings. Unless the Board of Directors shall otherwise provide, regular meetings of the Executive Committee or any other committee appointed pursuant to this Section 25 shall be held at such times and places as are determined by the Board of Directors, or by any such committee, and when notice thereof has been given to each member of such committee, no further notice of such regular meetings need be given thereafter. Special meetings of any such committee may be held at any place which has been determined from time to time by such committee, and may be called by any director who is a member of such committee, upon notice to the members of such committee of the time and place of such special meeting given in the manner provided for the giving of notice to members of the Board of Directors of the time and place of special meetings of the Board of Directors. Notice of any special meeting of any committee may be waived in writing or by electronic transmission at any time before or after the meeting and will be waived by any director by attendance thereat, except when the director attends such special meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Unless otherwise provided by the Board of Directors in the resolutions authorizing the creation of the committee, a majority of the authorized number of members of any such committee shall constitute a quorum for the transaction of business, and the act of a majority of those present at any meeting at which a quorum is present shall be the act of such committee.

Section 26. Lead Independent Director. The Chairman of the Board of Directors, or if the Chairman is not an independent director, one of the independent directors, may be designated by the Board of Directors as lead independent director to serve until replaced by the Board of Directors ("***Lead Independent Director***"). The Lead Independent Director will: with the Chairman of the Board of Directors, establish the agenda for regular Board meetings and serve as chairman of Board of Directors meetings in the absence of the Chairman of the Board of Directors; establish the agenda for meetings of the independent directors; coordinate with the committee chairs regarding meeting agendas and informational requirements; preside over meetings of the independent directors; preside over any portions of meetings of the Board of Directors at which the evaluation or compensation of the Chief Executive Officer is presented or discussed; preside over any portions of meetings of the Board of Directors at which the performance of the Board of Directors is presented or discussed; and perform such other duties as may be established or delegated by the Chairman of the Board of Directors**.**

Section 27. Organization. At every meeting of the directors, the Chairman of the Board of Directors, or, if a Chairman has not been appointed or is absent, the Lead Independent Director, or if the Lead Independent Director is absent, the Chief Executive Officer (if a director), or, if the Chief Executive Officer is absent, the President (if a director), or if the President is absent, the most senior Vice President (if a director), or, in the absence of any such person, a chairman of the meeting chosen by a majority of the directors present, shall preside over the meeting. The Secretary, or in his absence, any Assistant Secretary or other officer or director directed to do so by the President, shall act as secretary of the meeting.

ARTICLE V

OFFICERS

Section 28. Officers Designated. The officers of the corporation shall include, if and when designated by the Board of Directors, the Chief Executive Officer, the President, one or more Vice Presidents, the Secretary, the Chief Financial Officer and the Treasurer. The Board of Directors may also appoint one or more Assistant Secretaries and Assistant Treasurers and such other officers and agents with such powers and duties as it shall deem necessary. The Board of Directors may assign such additional titles to one or more of the officers as it shall deem appropriate. Any one person may hold any number of offices of the corporation at any one time unless specifically prohibited therefrom by law. The salaries and other compensation of the officers of the corporation shall be fixed by or in the manner designated by the Board of Directors.

Section 29. Tenure and Duties of Officers.

(a) General. All officers shall hold office at the pleasure of the Board of Directors and until their successors shall have been duly elected and qualified, unless sooner removed. Any officer elected or appointed by the Board of Directors may be removed at any time by the Board of Directors. If the office of any officer becomes vacant for any reason, the vacancy may be filled by the Board of Directors.

(b) Duties of Chief Executive Officer. The Chief Executive Officer shall preside at all meetings of the stockholders, unless the Chairman of the Board of Directors or the Lead Independent Director has been appointed and is present. Unless an officer has been appointed Chief Executive Officer of the corporation, the President shall be the chief executive officer of the corporation and shall, subject to the control of the Board of Directors, have general supervision, direction and control of the business and officers of the corporation. To the extent that a Chief Executive Officer has been appointed and no President has been appointed, all references in these Bylaws to the President shall be deemed references to the Chief Executive Officer. The Chief Executive Officer shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers, as the Board of Directors shall designate from time to time.

(c) Duties of President. The President shall preside at all meetings of the stockholders, unless the Chairman of the Board of Directors, the Lead Independent Director, or the Chief Executive Officer has been appointed and is present. Unless another officer has been appointed Chief Executive Officer of the corporation, the President shall be the Chief Executive Officer of the corporation and shall, subject to the control of the Board of Directors, have general supervision, direction and control of the business and officers of the corporation. The President shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers, as the Board of Directors shall designate from time to time.

(d) Duties of Vice Presidents. The Vice Presidents may assume and perform the duties of the President in the absence or disability of the President or whenever the office of President is vacant. The Vice Presidents shall perform other duties commonly incident to their office and shall also perform such other duties and have such other powers as the Board of Directors or the Chief Executive Officer, or, if the Chief Executive Officer has not been appointed or is absent, the President shall designate from time to time.

(e) Duties of Secretary. The Secretary shall attend all meetings of the stockholders and of the Board of Directors and shall record all acts and proceedings thereof in the minute book of the corporation. The Secretary shall give notice in conformity with these Bylaws of all meetings of the stockholders and of all meetings of the Board of Directors and any committee thereof requiring notice. The Secretary shall perform all other duties provided for in these Bylaws and other duties commonly incident to the office and shall also perform such other duties and have such other powers, as the Board of Directors shall designate from time to time. The President may direct any Assistant Secretary or other officer to assume and perform the duties of the Secretary in the absence or disability of the Secretary, and each Assistant Secretary shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers as the Board of Directors or the President shall designate from time to time.

(f) Duties of Chief Financial Officer. The Chief Financial Officer shall keep or cause to be kept the books of account of the corporation in a thorough and proper manner and shall render statements of the financial affairs of the corporation in such form and as often as required by the Board of Directors or the President. The Chief Financial Officer, subject to the order of the Board of Directors, shall have the custody of all funds and securities of the corporation. The Chief Financial Officer shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers as the Board of Directors or the President shall designate from time to time. To the extent that a Chief Financial Officer has been appointed and no Treasurer has been appointed, all references in these Bylaws to the Treasurer shall be deemed references to the Chief Financial Officer. The President may direct the Treasurer, if any, or any Assistant Treasurer, or the Controller or any Assistant Controller to assume and perform the duties of the Chief Financial Officer in the absence or disability of the Chief Financial Officer, and each Treasurer and Assistant Treasurer and each Controller and Assistant Controller shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers as the Board of Directors or the President shall designate from time to time.

(g) Duties of Treasurer. Unless another officer has been appointed Chief Financial Officer of the corporation, the Treasurer shall be the chief financial officer of the corporation and shall keep or cause to be kept the books of account of the corporation in a thorough and proper manner and shall render statements of the financial affairs of the corporation in such form and as often as required by the Board of Directors or the President, and, subject to the order of the Board of Directors, shall have the custody of all funds and securities of the corporation. The Treasurer shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers as the Board of Directors or the President shall designate from time to time.

Section 30. Delegation of Authority. The Board of Directors may from time to time delegate the powers or duties of any officer to any other officer or agent, notwithstanding any provision hereof.

Section 31. Resignations. Any officer may resign at any time by giving notice in writing or by electronic transmission to the Board of Directors or to the President or to the Secretary. Any such resignation shall be effective when received by the person or persons to whom such notice is given, unless a later time is specified therein, in which event the resignation shall become effective at such later time. Unless otherwise specified in such notice, the acceptance of any such resignation shall not be necessary to make it effective. Any resignation shall be without prejudice to the rights, if any, of the corporation under any contract with the resigning officer.

Section 32. Removal. Any officer may be removed from office at any time, either with or without cause, by the affirmative vote of a majority of the directors in office at the time, or by the unanimous written consent of the directors in office at the time, or by any committee or by the Chief Executive Officer or by other superior officers upon whom such power of removal may have been conferred by the Board of Directors.

ARTICLE VI

EXECUTION OF CORPORATE INSTRUMENTS AND VOTING OF SECURITIES OWNED BY THE CORPORATION

Section 33. Execution of Corporate Instruments. The Board of Directors may, in its discretion, determine the method and designate the signatory officer or officers, or other person or persons, to execute on behalf of the corporation any corporate instrument or document, or to sign on behalf of the corporation the corporate name without limitation, or to enter into contracts on behalf of the corporation, except where otherwise provided by law or these Bylaws, and such execution or signature shall be binding upon the corporation. All checks and drafts drawn on banks or other depositaries on funds to the credit of the corporation or in special accounts of the corporation shall be signed by such person or persons as the Board of Directors shall authorize so to do. Unless authorized or ratified by the Board of Directors or within the agency power of an officer, no officer, agent or employee shall have any power or authority to bind the corporation by any contract or engagement or to pledge its credit or to render it liable for any purpose or for any amount.

Section 34. Voting of Securities Owned by the Corporation. All stock and other securities of other corporations owned or held by the corporation for itself, or for other parties in any capacity, shall be voted, and all proxies with respect thereto shall be executed, by the person authorized so to do by resolution of the Board of Directors, or, in the absence of such authorization, by the Chairman of the Board of Directors, the Chief Executive Officer, the President, or any Vice President.

ARTICLE VII

SHARES OF STOCK

Section 35. Form and Execution of Certificates. The shares of the corporation shall be represented by certificates, or shall be uncertificated if so provided by resolution or resolutions of the Board of Directors. Certificates for the shares of stock, if any, shall be in such form as is consistent with the Certificate of Incorporation and applicable law. Every holder of stock represented by certificate in the corporation shall be entitled to have a certificate signed by or in the name of the corporation by the Chairman of the Board of Directors, or the President or any Vice President and by the Treasurer or Assistant Treasurer or the Secretary or Assistant Secretary, certifying the number of shares owned by him in the corporation. Any or all of the signatures on the certificate may be facsimiles. In case any officer, transfer agent, or registrar who has signed or whose facsimile signature has been placed upon a certificate shall have ceased to be such officer, transfer agent, or registrar before such certificate is issued, it may be issued with the same effect as if he were such officer, transfer agent, or registrar at the date of issue.

Section 36. Lost Certificates. A new certificate or certificates shall be issued in place of any certificate or certificates theretofore issued by the corporation alleged to have been lost, stolen, or destroyed, upon the making of an affidavit of that fact by the person claiming the certificate of stock to be

lost, stolen, or destroyed. The corporation may require, as a condition precedent to the issuance of a new certificate or certificates, the owner of such lost, stolen, or destroyed certificate or certificates, or the owner's legal representative, to agree to indemnify the corporation in such manner as it shall require or to give the corporation a surety bond in such form and amount as it may direct as indemnity against any claim that may be made against the corporation with respect to the certificate alleged to have been lost, stolen, or destroyed.

Section 37. Transfers.

(a) Transfers of record of shares of stock of the corporation shall be made only upon its books by the holders thereof, in person or by attorney duly authorized, and, in the case of stock represented by certificate, upon the surrender of a properly endorsed certificate or certificates for a like number of shares.

(b) The corporation shall have power to enter into and perform any agreement with any number of stockholders of any one or more classes of stock of the corporation to restrict the transfer of shares of stock of the corporation of any one or more classes owned by such stockholders in any manner not prohibited by the DGCL.

Section 38. Fixing Record Dates.

(a) In order that the corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof, the Board of Directors may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the Board of Directors, and which record date shall, subject to applicable law, not be more than 60 nor less than 10 days before the date of such meeting. If no record date is fixed by the Board of Directors, the record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the day next preceding the day on which notice is given, or if notice is waived, at the close of business on the day next preceding the day on which the meeting is held. A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; *provided, however*, that the Board of Directors may fix a new record date for the adjourned meeting.

(b) In order that the corporation may determine the stockholders entitled to receive payment of any dividend or other distribution or allotment of any rights or the stockholders entitled to exercise any rights in respect of any change, conversion or exchange of stock, or for the purpose of any other lawful action, the Board of Directors may fix, in advance, a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted, and which record date shall be not more than 60 days prior to such action. If no record date is fixed, the record date for determining stockholders for any such purpose shall be at the close of business on the day on which the Board of Directors adopts the resolution relating thereto.

Section 39. Registered Stockholders. The corporation shall be entitled to recognize the exclusive right of a person registered on its books as the owner of shares to receive dividends, and to vote as such owner, and shall not be bound to recognize any equitable or other claim to or interest in such share or shares on the part of any other person whether or not it shall have express or other notice thereof, except as otherwise provided by the laws of Delaware.

ARTICLE VIII

OTHER SECURITIES OF THE CORPORATION

Section 40. Execution of Other Securities. All bonds, debentures and other corporate securities of the corporation, other than stock certificates (covered in Section 35), may be signed by the Chairman of the Board of Directors, the President or any Vice President, or such other person as may be authorized by the Board of Directors, and the corporate seal impressed thereon or a facsimile of such seal imprinted thereon and attested by the signature of the Secretary or an Assistant Secretary, or the Chief Financial Officer or Treasurer or an Assistant Treasurer; *provided, however*, that where any such bond, debenture or other corporate security shall be authenticated by the manual signature, or where permissible facsimile signature, of a trustee under an indenture pursuant to which such bond, debenture or other corporate security shall be issued, the signatures of the persons signing and attesting the corporate seal on such bond, debenture or other corporate security may be the imprinted facsimile of the signatures of such persons. Interest coupons appertaining to any such bond, debenture or other corporate security, authenticated by a trustee as aforesaid, shall be signed by the Treasurer or an Assistant Treasurer of the corporation or such other person as may be authorized by the Board of Directors, or bear imprinted thereon the facsimile signature of such person. In case any officer who shall have signed or attested any bond, debenture or other corporate security, or whose facsimile signature shall appear thereon or on any such interest coupon, shall have ceased to be such officer before the bond, debenture or other corporate security so signed or attested shall have been delivered, such bond, debenture or other corporate security nevertheless may be adopted by the corporation and issued and delivered as though the person who signed the same or whose facsimile signature shall have been used thereon had not ceased to be such officer of the corporation.

ARTICLE IX

DIVIDENDS

Section 41. Declaration of Dividends. Dividends upon the capital stock of the corporation, subject to the provisions of the Certificate of Incorporation and applicable law, if any, may be declared by the Board of Directors pursuant to law at any regular or special meeting. Dividends may be paid in cash, in property, or in shares of the capital stock, subject to the provisions of the Certificate of Incorporation and applicable law.

Section 42. Dividend Reserve. Before payment of any dividend, there may be set aside out of any funds of the corporation available for dividends such sum or sums as the Board of Directors from time to time, in their absolute discretion, think proper as a reserve or reserves to meet contingencies, or for equalizing dividends, or for repairing or maintaining any property of the corporation, or for such other purpose as the Board of Directors shall think conducive to the interests of the corporation, and the Board of Directors may modify or abolish any such reserve in the manner in which it was created.

ARTICLE X

FISCAL YEAR

Section 43. Fiscal Year. The fiscal year of the corporation shall be fixed by resolution of the Board of Directors.

ARTICLE XI

INDEMNIFICATION

Section 44. Indemnification of Directors, Executive Officers, Other Officers, Employees and Other Agents.

(a) Directors and Executive Officers. The corporation shall indemnify its directors and executive officers (for the purposes of this Article XI, "executive officers" shall have the meaning defined in Rule 3b-7 promulgated under the 1934 Act) to the fullest extent not prohibited by the DGCL or any other applicable law; *provided, however*, that the corporation may modify the extent of such indemnification by individual contracts with its directors and executive officers; and, *provided, further*, that the corporation shall not be required to indemnify any director or executive officer in connection with any proceeding (or part thereof) initiated by such person unless (i) such indemnification is expressly required to be made by law, (ii) the proceeding was authorized by the Board of Directors of the corporation, (iii) such indemnification is provided by the corporation, in its sole discretion, pursuant to the powers vested in the corporation under the DGCL or any other applicable law or (iv) such indemnification is required to be made under subsection (d).

(b) Other Officers, Employees and Other Agents. The corporation shall have power to indemnify its other officers, employees and other agents as set forth in the DGCL or any other applicable law. The Board of Directors shall have the power to delegate the determination of whether indemnification shall be given to any such person (except executive officers) as the Board of Directors shall determine.

(c) Expenses. The corporation shall advance to any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that he is or was a director or executive officer of the corporation, or is or was serving at the request of the corporation as a director or executive officer of another corporation, partnership, joint venture, trust or other enterprise, prior to the final disposition of the proceeding, promptly following request therefor, all expenses incurred by any director or executive officer in connection with such proceeding *provided, however*, that if the DGCL requires, an advancement of expenses incurred by a director or executive officer in his or her capacity as a director or executive officer (and not in any other capacity in which service was or is rendered by such indemnitee, including, without limitation, service to an employee benefit plan) shall be made only upon delivery to the corporation of an undertaking (hereinafter an "undertaking"), by or on behalf of such indemnitee, to repay all amounts so advanced if it shall ultimately be determined by final judicial decision from which there is no further right to appeal (hereinafter a "final adjudication") that such indemnitee is not entitled to be indemnified for such expenses under this section or otherwise. Notwithstanding the foregoing, unless otherwise determined pursuant to paragraph (e) of this section, no advance shall be made by the corporation to an executive officer of the corporation (except by reason of the fact that such executive officer is or was a director of the corporation, in which event this sentence shall not apply) in any action, suit or proceeding, whether civil, criminal, administrative or investigative, if a determination is reasonably and promptly made (i) by a majority vote of directors who were not parties to the proceeding, even if not a quorum, or (ii) by a committee of such directors designated by a majority vote of such directors, even though less than a quorum, or (iii) if there are no such directors, or such directors so direct, by independent legal counsel in a written opinion, that the facts known to the decision-making party at the time such determination is made demonstrate clearly and convincingly that such person acted in bad faith or in a manner that such person did not believe to be in or not opposed to the best interests of the corporation.

(d) Enforcement. Without the necessity of entering into an express contract, all rights to indemnification and advances to directors and executive officers under this Section 44 shall be deemed to be contractual rights and be effective to the same extent and as if provided for in a contract between the corporation and the director or executive officer. Any right to indemnification or advances granted by this Section 44 to a director or executive officer shall be enforceable by or on behalf of the person holding such right in any court of competent jurisdiction if (i) the claim for indemnification or advances is denied, in whole or in part, or (ii) no disposition of such claim is made within 90 days of request therefor. To the extent permitted by law, the claimant in such enforcement action, if successful in whole or in part, shall be entitled to be paid also the expense of prosecuting the claim. In connection with any claim for indemnification, the corporation shall be entitled to raise as a defense to any such action that the claimant has not met the standards of conduct that make it permissible under the DGCL or any other applicable law for the corporation to indemnify the claimant for the amount claimed. In connection with any claim by an officer of the corporation (except in any action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that such executive officer is or was a director of the corporation) for advances, the corporation shall be entitled to raise a defense as to any such action clear and convincing evidence that such person acted in bad faith or in a manner that such person did not believe to be in or not opposed to the best interests of the corporation, or with respect to any criminal action or proceeding that such person acted without reasonable cause to believe that his conduct was lawful. Neither the failure of the corporation (including its Board of Directors, independent legal counsel or its stockholders) to have made a determination prior to the commencement of such action that indemnification of the claimant is proper in the circumstances because he has met the applicable standard of conduct set forth in the DGCL or any other applicable law, nor an actual determination by the corporation (including its Board of Directors, independent legal counsel or its stockholders) that the claimant has not met such applicable standard of conduct, shall be a defense to the action or create a presumption that claimant has not met the applicable standard of conduct. In any suit brought by a director or executive officer to enforce a right to indemnification or to an advancement of expenses hereunder, the burden of proving that the director or officer is not entitled to be indemnified, or to such advancement of expenses, under this section or otherwise shall be on the corporation.

(e) Nonexclusivity of Rights. The rights conferred on any person by this Section 44 shall not be exclusive of any other right which such person may have or hereafter acquire under any applicable statute, provision of the Certificate of Incorporation, Bylaws, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in his official capacity and as to action in another capacity while holding office. The corporation is specifically authorized to enter into individual contracts with any or all of its directors, officers, employees or agents respecting indemnification and advances, to the fullest extent not prohibited by the DGCL, or by any other applicable law.

(f) Survival of Rights. The rights conferred on any person by this Section 44 shall continue as to a person who has ceased to be a director or executive officer and shall inure to the benefit of the heirs, executors and administrators of such a person.

(g) Insurance. To the fullest extent permitted by the DGCL or any other applicable law, the corporation, upon approval by the Board of Directors, may purchase insurance on behalf of any person required or permitted to be indemnified pursuant to this section.

(h) Amendments. Any repeal or modification of this section shall only be prospective and shall not affect the rights under this Bylaw in effect at the time of the alleged occurrence of any action or omission to act that is the cause of any proceeding against any agent of the corporation.

(i) Saving Clause. If this Section 44 or any portion hereof shall be invalidated on any ground by any court of competent jurisdiction, then the corporation shall nevertheless indemnify each director and executive officer to the full extent not prohibited by any applicable portion of this section that shall not have been invalidated, or by any other applicable law. If this section shall be invalid due to the application of the indemnification provisions of another jurisdiction, then the corporation shall indemnify each director and executive officer to the full extent under any other applicable law.

(j) Certain Definitions. For the purposes of this Bylaw, the following definitions shall apply:

(i) The term "proceeding" shall be broadly construed and shall include, without limitation, the investigation, preparation, prosecution, defense, settlement, arbitration and appeal of, and the giving of testimony in, any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative.

(ii) The term "expenses" shall be broadly construed and shall include, without limitation, court costs, attorneys' fees, witness fees, fines, amounts paid in settlement or judgment and any other costs and expenses of any nature or kind incurred in connection with any proceeding.

(iii) The term the "corporation" shall include, in addition to the resulting corporation, any constituent corporation (including any constituent of a constituent) absorbed in a consolidation or merger which, if its separate existence had continued, would have had power and authority to indemnify its directors, officers, and employees or agents, so that any person who is or was a director, officer, employee or agent of such constituent corporation, or is or was serving at the request of such constituent corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, shall stand in the same position under the provisions of this section with respect to the resulting or surviving corporation as he would have with respect to such constituent corporation if its separate existence had continued.

(iv) References to a "director," "executive officer," "officer," "employee," or "agent" of the corporation shall include, without limitation, situations where such person is serving at the request of the corporation as, respectively, a director, executive officer, officer, employee, trustee or agent of another corporation, partnership, joint venture, trust or other enterprise.

(v) References to "other enterprises" shall include employee benefit plans; references to "fines" shall include any excise taxes assessed on a person with respect to an employee benefit plan; and references to "serving at the request of the corporation" shall include any service as a director, officer, employee or agent of the corporation which imposes duties on, or involves services by, such director, officer, employee, or agent with respect to an employee benefit plan, its participants, or beneficiaries; and a person who acted in good faith and in a manner he reasonably believed to be in the interest of the participants and beneficiaries of an employee benefit plan shall be deemed to have acted in a manner "not opposed to the best interests of the corporation" as referred to in this section.

ARTICLE XII

NOTICES

Section 45. Notices.

(a) Notice to Stockholders. Written notice to stockholders of stockholder meetings shall be given as provided in Section 7 herein. Without limiting the manner by which notice may otherwise be given effectively to stockholders under any agreement or contract with such stockholder, and except as otherwise required by law, written notice to stockholders for purposes other than stockholder meetings may be sent by US mail or nationally recognized overnight courier, or by facsimile, telegraph or telex or by electronic mail or other electronic means.

(b) Notice to Directors. Any notice required to be given to any director may be given by the method stated in subsection (a), as otherwise provided in these Bylaws, or by overnight delivery service, facsimile, telex or telegram, except that such notice other than one which is delivered personally shall be sent to such address as such director shall have filed in writing with the Secretary, or, in the absence of such filing, to the last known post office address of such director.

(c) Affidavit of Mailing. An affidavit of mailing, executed by a duly authorized and competent employee of the corporation or its transfer agent appointed with respect to the class of stock affected, or other agent, specifying the name and address or the names and addresses of the stockholder or stockholders, or director or directors, to whom any such notice or notices was or were given, and the time and method of giving the same, shall in the absence of fraud, be prima facie evidence of the facts therein contained.

(d) Methods of Notice. It shall not be necessary that the same method of giving notice be employed in respect of all recipients of notice, but one permissible method may be employed in respect of any one or more, and any other permissible method or methods may be employed in respect of any other or others.

(e) Notice to Person With Whom Communication Is Unlawful. Whenever notice is required to be given, under any provision of law or of the Certificate of Incorporation or Bylaws of the corporation, to any person with whom communication is unlawful, the giving of such notice to such person shall not be required and there shall be no duty to apply to any governmental authority or agency for a license or permit to give such notice to such person. Any action or meeting which shall be taken or held without notice to any such person with whom communication is unlawful shall have the same force and effect as if such notice had been duly given. In the event that the action taken by the corporation is such as to require the filing of a certificate under any provision of the DGCL, the certificate shall state, if such is the fact and if notice is required, that notice was given to all persons entitled to receive notice except such persons with whom communication is unlawful.

(f) Notice to Stockholders Sharing an Address. Except as otherwise prohibited under DGCL, any notice given under the provisions of DGCL, the Certificate of Incorporation or the Bylaws shall be effective if given by a single written notice to stockholders who share an address if consented to by the stockholders at that address to whom such notice is given. Such consent shall have been deemed to have been given if such stockholder fails to object in writing to the corporation within 60 days of having been given notice by the corporation of its intention to send the single notice. Any consent shall be revocable by the stockholder by written notice to the corporation.

ARTICLE XIII

AMENDMENTS

Section 46. Amendments. Subject to the limitations set forth in Section 44(h) of these Bylaws or the provisions of the Certificate of Incorporation, the Board of Directors is expressly empowered to adopt, amend or repeal the Bylaws of the corporation. The stockholders also shall have power to adopt, amend or repeal the Bylaws of the corporation; *provided, however*, that, in addition to any vote of the holders of any class or series of stock of the corporation required by law or by the Certificate of Incorporation, such action by stockholders shall require the affirmative vote of the holders of at least 66-2/3% of the voting power of all of the then-outstanding shares of the capital stock of the corporation entitled to vote generally in the election of directors, voting together as a single class.

ARTICLE XIV

LOANS TO OFFICERS

Section 47. Loans to Officers. Except as otherwise prohibited by applicable law, the corporation may lend money to, or guarantee any obligation of, or otherwise assist any officer or other employee of the corporation or of its subsidiaries, including any officer or employee who is a director of the corporation or its subsidiaries, whenever, in the judgment of the Board of Directors, such loan, guarantee or assistance may reasonably be expected to benefit the corporation. The loan, guarantee or other assistance may be with or without interest and may be unsecured, or secured in such manner as the Board of Directors shall approve, including, without limitation, a pledge of shares of stock of the corporation. Nothing in these Bylaws shall be deemed to deny, limit or restrict the powers of guaranty or warranty of the corporation at common law or under any statute.

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Exhibit 4.2

ATARA BIOTHERAPEUTICS, INC.

INVESTORS' RIGHTS AGREEMENT

March 31, 2014

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INVESTORS' RIGHTS AGREEMENT

This INVESTORS' RIGHTS AGREEMENT (the "**Agreement**") is made as of the 31st day of March, 2014, by and among Atara Biotherapeutics, Inc., a Delaware corporation (the "**Company**"), the investors listed on Schedule A hereto, each of which is herein referred to as an "**Investor**" and collectively as the "**Investors**", and the holders of Common Stock (as defined below) listed on Schedule B hereto, each of which is herein referred to as a "**Common Holder**" and collectively as the "**Common Holders**".

RECITALS

WHEREAS, the Company, the Common Holders and the Investors are party to that certain Share Exchange Agreement of even date herewith (the "**Share Exchange Agreement**") pursuant to which the Investors will exchange certain shares of capital stock held by such Investors in each of Nina Biotherapeutics, Inc., Pinta Biotherapeutics, Inc. and Santa Maria Biotherapeutics, Inc. (collectively, the "**Project Companies**") for shares of capital stock of the Company (the "**Share Exchange**");

WHEREAS, the Investors and Common Holders were party to certain Amended and Restated Investors' Rights Agreements with each of the Project Companies; and

WHEREAS, the obligations in the Share Exchange Agreement are conditioned upon the execution and delivery of this Agreement;

NOW, THEREFORE, in consideration of the foregoing premises and certain other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

1. Definitions. For purposes of this Agreement:

(a) The term "**Act**" means the Securities Act of 1933, as amended.

(b) The term "**Affiliate**" means, with respect to any Person, any other Person who or which, directly or indirectly, controls, is controlled by, or is under common control with such specified Person, including, without limitation, any general partner, officer, director or manager of such Person and any venture capital fund now or hereafter existing that is controlled by one or more general partners or managing members of, or is under common investment management with, such Person.

(c) The term "**Board**" means the Company's Board of Directors, as constituted from time to time.

(d) The term "**Form S-3**" means such form under the Act as in effect on the date hereof or any registration form under the Act subsequently adopted by the SEC that permits inclusion or incorporation of substantial information by reference to other documents filed by the Company with the SEC.

(e) The term "**Free Writing Prospectus**" means a free-writing prospectus, as defined in Rule 405.

(f) The term "**Holder**" means any Person owning or having the right to acquire Registrable Securities or any assignee thereof in accordance with Section 2.10 of this Agreement; provided, however, that the Common Holders shall not be deemed to be Holders for purposes of Sections 2.1, 2.3, 2.11 and 4.7.

(g) The term "**Initial Offering**" means the Company's first firm commitment underwritten public offering of its Common Stock under the Act.

(h) The term "**1934 Act**" means the Securities Exchange Act of 1934, as amended.

(i) The term "**Person**" shall mean any individual, corporation, partnership, trust, limited liability company, association or other entity.

(j) The terms "**register**," "**registered**," and "**registration**" refer to a registration effected by preparing and filing a registration statement or similar document in compliance with the Act, and the declaration or ordering of effectiveness of such registration statement or document.

(k) The term "**Registrable Securities**" means (i) the Common Stock issuable or issued upon conversion of the Preferred Stock, (ii) shares of Common Stock issued to the Common Holders; provided, however, that such shares of Common Stock shall not be deemed Registrable Securities for the purposes of Sections 2.1, 2.3, 2.11, 3.1, 3.3 and 4.7 and (iii) any Common Stock of the Company issued as (or issuable upon the conversion or exercise of any warrant, right or other security that is issued as) a dividend or other distribution with respect to, or in exchange for, or in replacement of, the shares referenced in (i) and (ii) above, excluding in all cases, however, any Registrable Securities sold by a Person in a transaction in which such Person's rights under Section 2 of this Agreement are not assigned. In addition, the number of shares of Registrable Securities outstanding shall equal the aggregate of the number of shares of Common Stock outstanding that are, and the number of shares of Common Stock issuable pursuant to then exercisable or convertible securities that are, Registrable Securities.

(l) The term "**Restated Certificate**" shall mean the Company's Restated Certificate of Incorporation, as amended and/or restated from time to time.

(m) The term "**Rule 144**" shall mean Rule 144 under the Act.

(n) The term "**Rule 144(b)(1)(i)**" shall mean subsection (b)(1)(i) of Rule 144 under the Act as it applies to Persons who have held shares for more than one (1) year.

(o) The term "**Rule 405**" shall mean Rule 405 under the Act.

(p) The term "**SEC**" shall mean the Securities and Exchange Commission.

2. Registration Rights. The Company covenants and agrees as follows:

2.1 Request for Registration.

(a) Subject to the conditions of this Section 2.1, if the Company shall receive at any time after the earlier of (i) five (5) years after the date of this Agreement or (ii) six (6) months after the effective date of the Initial Offering, a written request from the Holders of at least thirty-five percent (35%) of the Registrable Securities then outstanding (for purposes of this Section 2.1, the "**Initiating Holders**") that the Company file a registration statement under the Act covering the registration of Registrable Securities with an anticipated aggregate offering price of at least $30,000,000, then the Company shall, within twenty (20) days of the receipt thereof, give written notice of such request to all Holders, and subject to the limitations of this Section 2.1, use its commercially reasonable efforts to effect, as soon as practicable, the registration under the Act of all Registrable Securities that the Holders request to be registered in a written request received by the Company within twenty (20) days of the mailing of the Company's notice pursuant to this Section 2.1(a).

(b) If the Initiating Holders intend to distribute the Registrable Securities covered by their request by means of an underwriting, they shall so advise the Company as a part of their request made pursuant to this Section 2.1, and the Company shall include such information in the written notice referred to in Section 2.1(a). In such event the right of any Holder to include its Registrable Securities in such registration shall be conditioned upon such Holder's participation in such underwriting and the inclusion of such Holder's Registrable Securities in the underwriting (unless otherwise mutually agreed by a majority in interest of the Initiating Holders and such Holder) to the extent provided herein. All Holders proposing to distribute their securities through such underwriting shall enter into an underwriting agreement in customary form with the underwriter or underwriters selected for such underwriting by the Company (which underwriter or underwriters shall be reasonably acceptable to those Initiating Holders holding a majority of the Registrable Securities then held by all Initiating Holders). Notwithstanding any other provision of this Section 2.1, if the underwriter advises the Company that marketing factors require a limitation on the number of securities underwritten (including Registrable Securities), then the Company shall so advise all Holders of Registrable Securities that would otherwise be underwritten pursuant hereto, and the number of shares that may be included in the underwriting shall be allocated to the Holders of such Registrable Securities pro rata based on the number of Registrable Securities held by all such Holders (including the Initiating Holders). In no event shall any Registrable Securities be excluded from such underwriting unless all other securities are first excluded. Any Registrable Securities excluded or withdrawn from such underwriting shall be withdrawn from the registration.

(c) Notwithstanding the foregoing, the Company shall not be required to effect a registration pursuant to this Section 2.1:

(i) in any particular jurisdiction in which the Company would be required to execute a general consent to service of process in effecting such registration, unless the Company is already subject to service in such jurisdiction and except as may be required under the Act; or

(ii) after the Company has effected two (2) registrations pursuant to this Section 2.1, and such registrations have been declared or ordered effective; or

(iii) during the period starting with the date sixty (60) days prior to the Company's good faith estimate of the date of the filing of and ending on a date one hundred eighty (180) days following the effective date of a Company-initiated registration subject to Section 2.2 below, provided that the Company is actively employing in good faith its commercially reasonable efforts to cause such registration statement to become effective; or

(iv) if the Initiating Holders propose to dispose of Registrable Securities that may be registered on Form S-3 pursuant to Section 2.3 hereof; or

(v) if the Company shall furnish to Holders requesting a registration statement pursuant to this Section 2.1 a certificate signed by the Company's Chief Executive Officer or Chairman of the Board stating that in the good faith judgment of the Board, it would be seriously detrimental to the Company and its stockholders for such registration statement to be effected at such time, in which event the Company shall have the right to defer such filing for a period of not more than ninety (90) days after receipt of the request of the Initiating Holders; provided that such right shall be exercised by the Company not more than once in any twelve (12) month period; and provided further that the Company shall not register any securities for the account of itself or any other stockholder during such ninety (90) day period (other than a registration relating solely to the sale of securities of participants in a Company stock plan, a registration relating to a corporate reorganization or transaction under Rule 145 of the Act, a registration on any form that does not include substantially the same information as would be required to be included in a registration statement covering the sale of the Registrable Securities, or a registration in which the only Common Stock being registered is Common Stock issuable upon conversion of debt securities that are also being registered).

2.2 Company Registration.

(a) If (but without any obligation to do so) the Company proposes to register (including for this purpose a registration effected by the Company for stockholders other than the Holders) any of its stock or other securities under the Act in connection with the public offering of such securities (other than (i) a registration relating to a demand pursuant to Section 2.1 of this Agreement or (ii) a registration relating solely to the sale of securities of participants in a Company stock plan, a registration relating to a corporate reorganization or transaction under Rule 145 of the Act, a registration on any form that does not include substantially the same information as would be required to be included in a registration statement covering the sale of the Registrable Securities, or a registration in which the only Common Stock being registered is Common Stock issuable upon conversion of debt securities that are also being registered), the Company shall, at such time, promptly give each Holder written notice of such registration. Upon the written request of each Holder given within twenty (20) days after mailing of such notice by the Company in accordance with Section 4.5 of this Agreement, the Company shall, subject to the provisions of Section 2.2(c) of this Agreement, use its commercially reasonable efforts to cause to be registered under the Act all of the Registrable Securities that each such Holder requests to be registered.

(b) Right to Terminate Registration. The Company shall have the right to terminate or withdraw any registration initiated by it under this Section 2.2 prior to the effectiveness of such registration whether or not any Holder has elected to include securities in such registration. The expenses of such withdrawn registration shall be borne by the Company in accordance with Section 2.6 hereof.

(c) Underwriting Requirements. In connection with any offering involving an underwriting of shares of the Company's capital stock, the Company shall not be required under this Section 2.2 to include any of the Holders' securities in such underwriting unless they accept the terms of the underwriting as agreed upon between the Company and the underwriters selected by the Company (or by other Persons entitled to select the underwriters) and enter into an underwriting agreement in customary form with such underwriters, and then only in such quantity as the underwriters determine in their sole discretion will not jeopardize the success of the offering by the Company. If the total amount of securities, including Registrable Securities, requested by stockholders to be included in such offering exceeds the amount of securities sold other than by the Company that the underwriters determine in their sole discretion is compatible with the success of the offering, then the Company shall be required to include in the offering only that number of such securities, including Registrable Securities, that the underwriters determine in their sole discretion will not jeopardize the success of the offering. In the event that the underwriters determine that less than all of the Registrable Securities requested to be registered can be included in such offering, then the Registrable Securities that are included in such offering shall be apportioned pro rata among the selling Holders based on the number of Registrable Securities held by all selling Holders or in such other proportions as shall mutually be agreed to by all such selling Holders. Notwithstanding the foregoing, in no event shall (i) any Registrable Securities be excluded from such offering unless all other stockholders' securities have been first excluded from the offering, (ii) the amount of securities of the selling Holders included in the offering be reduced below thirty percent (30%) of the total amount of securities included in such offering, unless such offering is the Initial Offering, in which case the selling Holders may be excluded if the underwriters make the determination described above and no other stockholder's securities are included in such offering or (iii) any securities held by a Common Holder be included in such offering if any Registrable Securities held by any Holder other than a Common Holder (and that such Holder has requested to be registered) are excluded from such offering. For purposes of the preceding sentence concerning apportionment, for any selling stockholder that is a Holder of Registrable Securities and that is a venture capital fund, partnership or corporation, the affiliated venture capital funds, partners, members, retired partners and stockholders of such Holder, or the estates and family members of any such partners, members and retired partners and any trusts for the benefit of any of the foregoing Persons shall be deemed to be a single "selling Holder," and any pro rata reduction with respect to such "selling Holder" shall be based upon the aggregate amount of Registrable Securities owned by all such related entities and individuals.

2.3 Form S-3 Registration. In case the Company shall receive from the Holders of at least twenty-five percent (25%) of the Registrable Securities (for purposes of this Section 2.3, the "**S-3 Initiating Holders**") a written request or requests that the Company effect a registration on Form S-3 and any related qualification or compliance with respect to all or a part of the Registrable Securities owned by such Holder or Holders, the Company shall:

(a) promptly give written notice of the proposed registration, and any related qualification or compliance, to all other Holders; and

(b) use its commercially reasonable efforts to effect, as soon as practicable, such registration and all such qualifications and compliances as may be so requested and as would permit or facilitate the sale and distribution of all or such portion of such Holders' Registrable Securities as are specified in such request, together with all or such portion of the Registrable Securities of any other Holders joining in such request as are specified in a written request given within fifteen (15) days after receipt of such written notice from the Company; provided, however, that the Company shall not be obligated to effect any such registration, qualification or compliance, pursuant to this Section 2.3:

(i) if Form S-3 is not available for such offering by the Holders;

(ii) if the Holders, together with the holders of any other securities of the Company entitled to inclusion in such registration, propose to sell Registrable Securities and such other securities (if any) at an aggregate price to the public (net of any underwriters' discounts or commissions) of less than $5,000,000;

(iii) if the Company shall furnish to all Holders requesting a registration statement pursuant to this Section 2.3 a certificate signed by the Company's Chief Executive Officer or Chairman of the Board stating that in the good faith judgment of the Board, it would be seriously detrimental to the Company and its stockholders for such registration statement to be effected at such time, in which event the Company shall have the right to defer such filing for a period of not more than ninety (90) days after receipt of the request of the S-3 Initiating Holders; provided that such right shall be exercised by the Company not more than once in any twelve (12) month period; and provided further that the Company shall not register any securities for the account of itself or any other stockholder during such ninety (90) day period (other than a registration relating solely to the sale of securities of participants in a Company stock plan, a registration relating to a corporate reorganization or transaction under Rule 145 of the Act, a registration on any form that does not include substantially the same information as would be required to be included in a registration statement covering the sale of the Registrable Securities, or a registration in which the only Common Stock being registered is Common Stock issuable upon conversion of debt securities that are also being registered);

(iv) if the Company has, within the twelve (12) month period preceding the date of such request, already effected two (2) registrations on Form S-3 pursuant to this Section 2.3;

(v) in any particular jurisdiction in which the Company would be required to qualify to do business or to execute a general consent to service of process in effecting such registration, qualification or compliance;

(vi) if the Company, within thirty (30) days of receipt of the request of such S-3 Initiating Holders, gives notice of its bona fide intention to effect the filing of a registration statement with the SEC within one hundred twenty (120) days of receipt of such

request (other than a registration effected solely to qualify an employee benefit plan or to effect a business combination pursuant to Rule 145), provided that the Company is actively employing in good faith its commercially reasonable efforts to cause such registration statement to become effective; or

(vii) during the period starting with the date thirty (30) days prior to the Company's good faith estimate of the date of the filing of and ending on a date ninety (90) days following the effective date of a Company-initiated registration subject to Section 2.2 of this Agreement, provided that the Company is actively employing in good faith its commercially reasonable efforts to cause such registration statement to become effective.

(c) If the S-3 Initiating Holders intend to distribute the Registrable Securities covered by their request by means of an underwriting, they shall so advise the Company as a part of their request made pursuant to this Section 2.3 and the Company shall include such information in the written notice referred to in Section 2.3(a). The provisions of Section 2.1(b) of this Agreement shall be applicable to such request (with the substitution of Section 2.3 for references to Section 2.1).

(d) Subject to the foregoing, the Company shall file a registration statement covering the Registrable Securities and other securities so requested to be registered as soon as practicable after receipt of the request or requests of the S-3 Initiating Holders. Registrations effected pursuant to this Section 2.3 shall not be counted as requests for registration effected pursuant to Section 2.1 of this Agreement.

2.4 Obligations of the Company. Whenever required under this Section 2 to effect the registration of any Registrable Securities, the Company shall, as expeditiously as reasonably possible:

(a) prepare and file with the SEC a registration statement with respect to such Registrable Securities and use its commercially reasonable efforts to cause such registration statement to become effective, and, upon the request of the Holders of a majority of the Registrable Securities registered thereunder, keep such registration statement effective for a period of up to one hundred twenty (120) days or, if earlier, until the distribution contemplated in the Registration Statement has been completed;

(b) prepare and file with the SEC such amendments and supplements to such registration statement and the prospectus used in connection with such registration statement as may be necessary to comply with the provisions of the Act with respect to the disposition of all securities covered by such registration statement;

(c) furnish to the Holders such number of copies of a prospectus, including a preliminary prospectus and any Free Writing Prospectus, in conformity with the requirements of the Act, and such other documents as they may reasonably request in order to facilitate the disposition of Registrable Securities owned by them;

(d) use its commercially reasonable efforts to register and qualify the securities covered by such registration statement under such other securities or Blue Sky laws of such jurisdictions as shall be reasonably requested by the Holders, provided that the Company shall not be required in connection therewith or as a condition thereto to qualify to do business or to file a general consent to service of process in any such states or jurisdictions;

(e) in the event of any underwritten public offering, enter into and perform its obligations under an underwriting agreement, in usual and customary form, with the managing underwriter of such offering;

(f) notify each Holder of Registrable Securities covered by such registration statement at any time when a prospectus or Free Writing Prospectus (to the extent prepared by or on behalf of the Company) relating thereto is required to be delivered under the Act of the happening of any event as a result of which the prospectus included in such registration statement, as then in effect, includes an untrue statement of a material fact or omits to state a material fact required to be stated therein or necessary to make the statements therein not misleading in the light of the circumstances then existing, and, at the request of any such Holder, the Company will, as soon as reasonably practicable, file and furnish to all such Holders a supplement or amendment to such prospectus or Free Writing Prospectus (to the extent prepared by or on behalf of the Company) so that, as thereafter delivered to the purchasers of such Registrable Securities, such prospectus will not contain an untrue statement of a material fact or omit to state any fact necessary to make the statements therein not misleading in light of the circumstances under which they were made;

(g) cause all such Registrable Securities registered pursuant to this Section 2 to be listed on a national exchange or trading system and on each securities exchange and trading system on which similar securities issued by the Company are then listed; and

(h) provide a transfer agent and registrar for all Registrable Securities registered pursuant to this Agreement and a CUSIP number for all such Registrable Securities, in each case not later than the effective date of such registration.

Notwithstanding the provisions of this Section 2, the Company shall be entitled to postpone or suspend, for a reasonable period of time, the filing, effectiveness or use of, or trading under, any registration statement if the Company shall determine that any such filing or the sale of any securities pursuant to such registration statement would in the good faith judgment of the Board:

(i) materially impede, delay or interfere with any material pending or proposed financing, acquisition, corporate reorganization or other similar transaction involving the Company for which the Board has authorized negotiations;

(ii) materially and adversely impair the consummation of any pending or proposed material offering or sale of any class of securities by the Company; or

(iii) require disclosure of material nonpublic information that, if disclosed at such time, would be materially harmful to the interests of the Company and its stockholders; provided, however, that during any such period all executive officers and directors of the Company are also prohibited from selling securities of the Company (or any security of any of the Company's subsidiaries or affiliates).

In the event of the suspension of effectiveness of any registration statement pursuant to this Section 2.4, the applicable time period during which such registration statement is to remain effective shall be extended by that number of days equal to the number of days the effectiveness of such registration statement was suspended.

2.5 Information from Holder. It shall be a condition precedent to the obligations of the Company to take any action pursuant to this Section 2 with respect to the Registrable Securities of any selling Holder that such Holder shall furnish to the Company such information regarding itself, the Registrable Securities held by it, and the intended method of disposition of such securities as shall be reasonably required to effect the registration of such Holder's Registrable Securities.

2.6 Expenses of Registration. All expenses other than underwriting discounts and commissions incurred in connection with registrations, filings or qualifications pursuant to Sections 2.1, 2.2 and 2.3 of this Agreement, including, without limitation, all registration, filing and qualification fees, printers' and accounting fees, fees and disbursements of counsel for the Company and the reasonable fees and disbursements of one counsel for the selling Holders (not to exceed $50,000) shall be borne by the Company. Notwithstanding the foregoing, the Company shall not be required to pay for any expenses of any registration proceeding begun pursuant to Section 2.1 or Section 2.3 of this Agreement if the registration request is subsequently withdrawn at the request of the Holders of a majority of the Registrable Securities to be registered (in which case all participating Holders shall bear such expenses pro rata based upon the number of Registrable Securities that were to be included in the withdrawn registration) unless, in the case of a registration requested under Section 2.1 of this Agreement, the Holders of a majority of the Registrable Securities agree to forfeit their right to one demand registration pursuant to Section 2.1 of this Agreement; provided, however, that if at the time of such withdrawal, the Holders have learned of a material adverse change in the condition, business or prospects of the Company from that known to the Holders at the time of their request and have withdrawn the request with reasonable promptness following disclosure by the Company of such material adverse change, then the Holders shall not be required to pay any of such expenses and shall retain their rights pursuant to Sections 2.1 and 2.3 of this Agreement.

2.7 Delay of Registration. No Holder shall have any right to obtain or seek an injunction restraining or otherwise delaying any such registration as the result of any controversy that might arise with respect to the interpretation or implementation of this Section 2.

2.8 Indemnification. In the event any Registrable Securities are included in a registration statement under this Section 2:

(a) To the extent permitted by law, the Company will indemnify and hold harmless each Holder, the partners, members, officers, directors and stockholders of each Holder, legal counsel and accountants for each Holder, any underwriter (as defined in the Act) for such Holder and each Person, if any, who controls such Holder or underwriter within the meaning of the Act or the 1934 Act, against any losses, claims, damages or liabilities (joint or several) to which they may become subject under the Act, the 1934 Act, any state securities laws or any rule or regulation promulgated under the Act, the 1934 Act or any state securities laws, insofar as such losses, claims, damages, or liabilities (or actions or proceedings, whether

commenced or threatened, in respect thereof) arise out of or are based upon any of the following statements, omissions or violations (collectively, a "**Violation**"): (i) any untrue or alleged untrue statement of a material fact contained in such registration statement, including any preliminary prospectus, final prospectus, or Free Writing Prospectus contained therein or any amendments or supplements thereto, any issuer information (as defined in Rule 433 of the Act) filed or required to be filed pursuant to Rule 433(d) under the Act or any other document incident to such registration prepared by or on behalf of the Company or used or referred to by the Company, (ii) the omission or alleged omission of a material fact required to be stated in such registration statement, or necessary to make the statements therein not misleading or (iii) any violation or alleged violation by the Company of the Act, the 1934 Act, any state securities laws or any rule or regulation promulgated under the Act, the 1934 Act or any state securities laws, and the Company will reimburse each such Holder, underwriter, controlling Person or other aforementioned Person for any legal or other expenses reasonably incurred by them in connection with investigating or defending any such loss, claim, damage, liability, action or proceeding as such expenses are incurred; provided, however, that the indemnity agreement contained in this Section 2.8(a) shall not apply to amounts paid in settlement of any such loss, claim, damage, liability, action or proceeding if such settlement is effected without the consent of the Company (which consent shall not be unreasonably withheld), nor shall the Company be liable in any such case for any such loss, claim, damage, liability, action or proceeding to the extent that it arises out of or is based upon a Violation that occurs in reliance upon, and in conformity with, written information furnished expressly for use in connection with such registration by any such Holder, underwriter, controlling Person or other aforementioned Person.

(b) To the extent permitted by law, each selling Holder, severally and not jointly, will indemnify and hold harmless the Company, each of its directors, each of its officers who has signed the registration statement, each Person, if any, who controls the Company within the meaning of the Act, legal counsel and accountants for the Company, any underwriter, any other Holder selling securities in such registration statement and any controlling Person of any such underwriter or other Holder, against any losses, claims, damages or liabilities (joint or several) to which any of the foregoing Persons may become subject, under the Act, the 1934 Act, any state securities laws or any rule or regulation promulgated under the Act, the 1934 Act or any state securities laws, insofar as such losses, claims, damages or liabilities (or actions or proceedings, whether commenced or threatened, in respect thereof) arise out of or are based upon any Violation, in each case to the extent (and only to the extent) that such Violation occurs in reliance upon and in conformity with written information furnished by such Holder expressly for use in connection with such registration; and each such Holder will reimburse any Person intended to be indemnified pursuant to this Section 2.8(b) for any legal or other expenses reasonably incurred by such Person in connection with investigating or defending any such loss, claim, damage, liability, action or proceeding as such expenses are incurred; provided, however, that the indemnity agreement contained in this Section 2.8(b) shall not apply to amounts paid in settlement of any such loss, claim, damage, liability, action or proceeding if such settlement is effected without the consent of the Holder (which consent shall not be unreasonably withheld), and provided that in no event shall any indemnity under this Section 2.8(b) exceed the net proceeds from the offering received by such Holder.

(c) Promptly after receipt by an indemnified party under this Section 2.8 of notice of the commencement of any action or proceeding (including any governmental action or proceeding) for which a party may be entitled to indemnification, such indemnified party will, if a claim in respect thereof is to be made against any indemnifying party under this Section 2.8, deliver to the indemnifying party a written notice of the commencement thereof and the indemnifying party shall have the right to participate in and, to the extent the indemnifying party so desires, jointly with any other indemnifying party similarly noticed, to assume the defense thereof with counsel mutually satisfactory to the parties; provided, however, that an indemnified party (together with all other indemnified parties that may be represented without conflict by one counsel) shall have the right to retain one (1) separate counsel, with the fees and expenses to be paid by the indemnifying party, if representation of such indemnified party by the counsel retained by the indemnifying party would be inappropriate due to actual or potential differing interests between such indemnified party and any other party represented by such counsel in such proceeding. The failure to deliver written notice to the indemnifying party within a reasonable time of the commencement of any such action or proceeding, if prejudicial to its ability to defend such action or proceeding, shall relieve such indemnifying party of any liability to the indemnified party under this Section 2.8 to the extent of such prejudice, but the omission to so deliver written notice to the indemnifying party will not relieve such indemnifying party of any liability that it may have to any indemnified party otherwise than under this Section 2.8.

(d) If the indemnification provided for in this Section 2.8 is held by a court of competent jurisdiction to be unavailable to an indemnified party with respect to any loss, liability, claim, damage or expense referred to herein, then the indemnifying party, in lieu of indemnifying such indemnified party hereunder, shall contribute to the amount paid or payable by such indemnified party as a result of such loss, liability, claim, damage or expense in such proportion as is appropriate to reflect the relative fault of the indemnifying party on the one hand and the indemnified party on the other hand in connection with the statements or omissions that resulted in such loss, liability, claim, damage or expense, as well as any other relevant equitable considerations; provided, however, that (i) no contribution by any Holder, when combined with any amounts paid by such Holder pursuant to Section 2.8(b), shall exceed the net proceeds from the offering received by such Holder and (ii) no Person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Act) will be entitled to contribution from any Person who was not guilty of such fraudulent misrepresentation. The relative fault of the indemnifying party and the indemnified party shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission or alleged omission to state a material fact relates to information supplied by the indemnifying party or by the indemnified party and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission.

(e) Notwithstanding the foregoing, to the extent that the provisions on indemnification and contribution contained in the underwriting agreement entered into in connection with the underwritten public offering are in conflict with the foregoing provisions, the provisions in the underwriting agreement shall control; provided, however, that the underwriting agreement shall not, without a particular Holder's written approval, (i) expand the indemnity obligation of such Holder beyond the net proceeds from the offering received by such Holder as contemplated by Section 2.8(b) or (ii) expand the contribution to be made by such Holder, when combined with any amounts paid by such Holder pursuant to the indemnification provisions contained in the underwriting agreement, beyond the net proceeds from the offering received by such Holder, as contemplated by Section 2.8(d).

(f) The obligations of the Company and Holders under this Section 2.8 shall survive the completion of any offering of Registrable Securities in a registration statement under this Section 2 and otherwise.

2.9 Reports Under the 1934 Act. With a view to making available to the Holders the benefits of Rule 144 and any other rule or regulation of the SEC that may at any time permit a Holder to sell securities of the Company to the public without registration or pursuant to a registration on Form S-3, the Company agrees to:

(a) make and keep public information available, as those terms are understood and defined in Rule 144, at all times after the effective date of the Initial Offering;

(b) file with the SEC in a timely manner all reports and other documents required of the Company under the Act and the 1934 Act; and

(c) furnish to any Holder, so long as the Holder owns any Registrable Securities, forthwith upon request (i) a written statement by the Company that it has complied with the reporting requirements of Rule 144 (at any time after ninety (90) days after the effective date of the first registration statement filed by the Company), the Act and the 1934 Act (at any time after it has become subject to such reporting requirements), or that it qualifies as a registrant whose securities may be resold pursuant to Form S-3 (at any time after it so qualifies), (ii) a copy of the most recent annual or quarterly report of the Company and such other reports and documents so filed by the Company and (iii) such other information as may be reasonably requested to avail any Holder of any rule or regulation of the SEC that permits the selling of any such securities without registration or pursuant to such form.

2.10 Assignment of Registration Rights. The rights to cause the Company to register Registrable Securities pursuant to this Section 2 may be assigned (but only with all related obligations) by a Holder to a transferee or assignee of such securities that (a) is an Affiliate, subsidiary, parent, partner, limited partner, retired partner, member or stockholder of a Holder, (b) is a Holder's family member or trust for the benefit of an individual Holder or any of such Holder's family members, or (c) after such assignment or transfer, holds at least two million (2,000,000) shares of Registrable Securities (appropriately adjusted for any stock split, dividend, combination or other recapitalization), provided: (i) the Company is, within a reasonable time after such transfer, furnished with written notice of the name and address of such transferee or assignee and the securities with respect to which such registration rights are being assigned; (ii) such transferee or assignee agrees in writing to be bound by and subject to the terms and conditions of this Agreement, including, without limitation, the provisions of Section 2.12 of this Agreement; and (iii) such assignment shall be effective only if immediately following such transfer the further disposition of such securities by the transferee or assignee is restricted under the Act.

2.11 Limitations on Subsequent Registration Rights. From and after the date of this Agreement, the Company shall not, without the prior written consent of the Holders holding a majority of the Registrable Securities then held by all Holders, enter into any agreement with any holder or prospective holder of any securities of the Company that would allow such holder or prospective holder (a) to include any of such securities in any registration filed under Section 2.1, Section 2.2 or Section 2.3 of this Agreement, unless under the terms of such agreement, such holder or prospective holder may include such securities in any such registration only to the extent that the inclusion of such securities will not reduce the amount of the Registrable Securities of the Holders that are included or (b) to demand registration of their securities.

2.12 "Market Stand-Off" Agreement.

(a) Each Holder hereby agrees that it will not, without the prior written consent of the managing underwriter, during the period commencing on the date of the final prospectus relating to the Initial Offering and ending on the date specified by the Company and the managing underwriter (such period not to exceed one hundred eighty (180) days) (i) lend, offer, pledge, sell, contract to sell (including, without limitation, any short sale), sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, or otherwise transfer or dispose of, directly or indirectly, any shares of Common Stock or any securities convertible into or exercisable or exchangeable for Common Stock (whether such shares or any such securities are then owned by the Holder or are thereafter acquired), or (ii) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of the Common Stock, whether any such transaction described in clause (i) or (ii) above is to be settled by delivery of Common Stock or other securities, in cash or otherwise. The foregoing provisions of this Section 2.12 shall apply only to the Initial Offering, shall not apply to the sale of any shares to an underwriter pursuant to an underwriting agreement, and shall only be applicable to the Holders if all officers, directors and greater than one percent (1%) stockholders of the Company (after giving effect to conversion into Common Stock of all outstanding Preferred Stock) enter into similar agreements. The underwriters in connection with the Initial Offering are intended third-party beneficiaries of this Section 2.12 and shall have the right, power and authority to enforce the provisions hereof as though they were a party hereto. Each Holder further agrees to execute such agreements as may be reasonably requested by the underwriters in the Initial Offering that are consistent with this Section 2.12 or that are necessary to give further effect thereto. Any discretionary waiver or termination of the restrictions of any or all of such agreements by the Company or the underwriters shall apply to all Holders subject to such agreements pro rata based on the number of shares subject to such agreements.

In order to enforce the foregoing covenant, the Company may impose stop-transfer instructions with respect to the Registrable Securities of each Holder (and the shares or securities of every other Person subject to the foregoing restriction) until the end of such period.

(b) Each Holder agrees that a legend reading substantially as follows shall be placed on all certificates representing all shares or securities of the Company of each Holder (and the shares or securities of every other Person subject to the restriction contained in this Section 2.12):

THE SECURITIES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO A LOCK-UP PERIOD AFTER THE EFFECTIVE DATE OF THE ISSUER'S REGISTRATION STATEMENT FILED UNDER THE ACT, AS AMENDED, AS SET FORTH IN AN AGREEMENT BETWEEN THE COMPANY AND THE ORIGINAL HOLDER OF THESE SECURITIES, A COPY OF WHICH MAY BE OBTAINED AT THE ISSUER'S PRINCIPAL OFFICE. SUCH LOCK-UP PERIOD IS BINDING ON TRANSFEREES OF THESE SHARES.

2.13 Termination of Registration Rights. No Holder shall be entitled to exercise any right provided for in this Section 2: (a) after five (5) years following the consummation of the Initial Offering, (b) as to any Holder, such earlier time after the Initial Offering at which such Holder (i) can sell all shares held by it in compliance with Rule 144(b)(1)(i), or (ii) holds one percent (1%) or less of the Company's outstanding Common Stock and all Registrable Securities held by such Holder (together with any Affiliate of the Holder with whom such Holder must aggregate its sales under Rule 144) can be sold in any three (3) month period without registration in compliance with Rule 144 or (c) after the consummation of a Liquidation Event, as that term is defined in the Restated Certificate.

3. Covenants of the Company.

3.1 Delivery of Financial Information.

(a) Delivery of Financial Statements. The Company shall deliver to each Investor (or transferee of an Investor) that holds at least six hundred sixty-six thousand six hundred sixty-six (666,666) shares of Registrable Securities (appropriately adjusted for any stock split, dividend, combination or other recapitalization) and Amgen Inc. ("**Amgen**") for so long as Amgen holds at least eighty percent (80%) of the shares of the Series A-1 Preferred Stock issued to it in connection with the Share Exchange (in each case, a "**Major Investor**"):

(i) as soon as practicable, but in any event within one hundred and eighty (180) days after the end of each fiscal year of the Company, an income statement for such fiscal year, a balance sheet of the Company and statement of stockholders' equity as of the end of such year, and a statement of cash flows for such year, such year-end financial reports to be in reasonable detail, prepared in accordance with generally accepted accounting principles ("**GAAP**"), and, beginning with the financial statements for the fiscal year ended December 31, 2013 and all successive fiscal years, audited and certified by independent public accountants of nationally recognized standing selected by the Company;

(ii) as soon as practicable, but in any event within forty-five (45) days after the end of each of the first three (3) quarters of each fiscal year of the Company, an unaudited income statement and statement of cash flows for such fiscal quarter and an unaudited balance sheet as of the end of such fiscal quarter, all prepared in accordance with GAAP (except that such financial statements may (A) be subject to normal year-end audit adjustments and (B) not contain all notes thereto that may be required in accordance with GAAP); and

(iii) as soon as practicable, but in any event within thirty (30) days after the end of each of the first eleven calendar months of each fiscal year of the Company, a monthly cash report detailing the major categories of sources and uses of cash, comparing the book balances to the bank balances.

(b) Delivery of Annual Budget. As soon as practicable, but in any event no later than the later of thirty (30) days prior to the beginning of each fiscal year or such later date as shall be approved by the Board, an operating budget, approved by the Board, forecasting the Company's revenues, expenses and cash position on a month to month basis for such upcoming fiscal year.

3.2 Termination of Information Covenants. The covenants set forth in Section 3.1 shall terminate and be of no further force or effect upon the earlier to occur of (a) the consummation of the sale of securities pursuant to a registration statement filed by the Company under the Act in connection with the firm commitment underwritten offering of its securities to the general public, (b) when the Company first becomes subject to the periodic reporting requirements of Sections 12(g) or 15(d) of the 1934 Act, whichever event shall first occur and (c) the consummation of a Liquidation Event, as that term is defined in the Restated Certificate.

3.3 Right of First Offer. Subject to the terms and conditions specified in this Section 3.3, the Company hereby grants to each Major Investor a right of first offer with respect to future sales by the Company of its Shares (as hereinafter defined). For purposes of this Section 3.3, the term "**Major Investor**" includes any general partners and Affiliates of a Major Investor. A Major Investor shall be entitled to apportion the right of first offer hereby granted it among itself and its partners and Affiliates in such proportions as it deems appropriate.

Each time the Company proposes to offer any shares of, or securities convertible into or exchangeable or exercisable for any shares of, its capital stock (including, without limitation, any such shares or securities issued in connection with debt securities) ("**Shares**"), the Company shall first make an offering of such Shares to each Major Investor in accordance with the following provisions:

(a) The Company shall deliver a notice in accordance with Section 4.5 ("**Notice**") to the Major Investors stating (i) its bona fide intention to offer such Shares, (ii) the number of such Shares to be offered and (iii) the price and terms upon which it proposes to offer such Shares.

(b) By written notification received by the Company within twenty (20) calendar days after the giving of Notice, each Major Investor may elect to purchase, at the price and on the terms specified in the Notice, up to that portion of such Shares that equals the proportion that the number of shares of Registrable Securities issued and held by such Major Investor (assuming full conversion and exercise of all convertible and exercisable securities then outstanding) bears to the total number of shares of Common Stock of the Company then outstanding (assuming full conversion and exercise of all convertible and exercisable securities then outstanding). At the expiration of such twenty (20) calendar day period, the Company shall promptly, in writing, notify each Major Investor that elects to purchase all the shares available to it (a "**Fully-Exercising Investor**") of any other Major Investor's failure to do likewise. During

the ten (10) calendar day period commencing after the Company has given such notice to the Fully-Exercising Investors, each Fully-Exercising Investor may elect to purchase that portion of the Shares for which Major Investors were entitled to subscribe, but which were not subscribed for by the Major Investors, that is equal to the proportion that the number of shares of Registrable Securities issued and held by such Fully-Exercising Investor bears to the total number of shares of Common Stock issued and held, or issuable upon conversion of the Preferred Stock then held, by all Fully-Exercising Investors who wish to purchase some of the unsubscribed shares.

(c) If all Shares that Major Investors are entitled to obtain pursuant to Section 3.3(b) of this Agreement are not elected to be obtained as provided in Section 3.3(b) of this Agreement, the Company may, during the ninety (90) day period following the expiration of the period provided in Section 3.3(b) of this Agreement, offer the remaining unsubscribed portion of such Shares to any Person or Persons at a price not less than that, and upon terms no more favorable to the offeree than those, specified in the Notice. If the Company does not enter into an agreement for the sale of the Shares within such period, or if such agreement is not consummated within sixty (60) days of the execution thereof, the right provided hereunder shall be deemed to be revived and such Shares shall not be offered unless first reoffered to the Major Investors in accordance herewith.

(d) The right of first offer in this Section 3.3 shall not be applicable to (i) the issuance or sale of shares of Common Stock (or options therefor) to employees, directors, consultants and other service providers for the primary purpose of soliciting or retaining their services pursuant to plans or agreements approved by the Board; (ii) the issuance of securities pursuant to an underwritten public offering of shares of Common Stock registered under the Act, (iii) the issuance of securities pursuant to the conversion or exercise of convertible or exercisable securities, (iv) the issuance of securities in connection with a bona fide business acquisition by the Company, whether by merger, consolidation, sale of assets, sale or exchange of stock or otherwise, (v) the issuance of shares of capital stock pursuant to the Share Exchange Agreement, (vi) the issuance of stock, warrants or other securities or rights pursuant to any equipment leasing arrangement or debt financing arrangement, which arrangement is approved by the Board and is primarily for non-equity financing purposes, (vii) the issuance of stock, warrants or other securities or rights to Persons or entities with which the Company has business relationships, provided such issuances are approved by the Board and are primarily for non-equity financing purposes or (viii) the issuance of securities that are unanimously approved by the Board as not being offered to any existing stockholder of the Company and not subject to this Section 3.3. In addition to the foregoing, the right of first offer in this Section 3.3 shall not be applicable with respect to any Major Investor in any subsequent offering of Shares if (i) at the time of such offering, the Major Investor is not an "accredited investor," as that term is then defined in Rule 501(a) of the Act and (ii) such offering of Shares is otherwise being offered only to accredited investors.

(e) The rights provided in this Section 3.3 may not be assigned or transferred by any Major Investor; provided, however, that a Major Investor that is a venture capital fund may assign or transfer such rights to its Affiliates.

(f) The covenants set forth in this Section 3.3 shall terminate and be of no further force or effect upon the consummation of (i) the Company's sale of its Common Stock or other securities pursuant to Registration Statement under the Act (other than a registration statement relating either to the sale of securities to employees of the Company pursuant to its stock option, stock purchase or similar plan or a SEC Rule 145 transaction) or (ii) a Liquidation Event, as that term is defined in the Restated Certificate.

3.4 Insurance.

(a) Key-Man Insurance. If requested by the Board, the Company shall obtain and maintain in full force and effect term life insurance in the amount of $1,000,000 on the life of Isaac Ciechanover, with proceeds payable to the Company until such time as the Board determines that such insurance should be discontinued.

(b) Directors' and Officers' Insurance. The Company shall use its commercially reasonable efforts to obtain from financially sound and reputable insurers directors and officers liability insurance in an amount and on terms and conditions satisfactory to the Board, and will use its commercially reasonable efforts to cause such insurance policy to be maintained until such time as the Board determines that such insurance should be discontinued.

3.5 Indemnification Matters. The Company hereby acknowledges that one (1) or more of the directors nominated to serve on the Board by the Investors (each a "**Fund Director**") may have certain rights to indemnification, advancement of expenses and/or insurance provided by one or more of the Investors and certain of their affiliates (collectively, the "**Fund Indemnitors**"). The Company hereby agrees (a) that it is the indemnitor of first resort (i.e., its obligations to any such Fund Director are primary and any obligation of the Fund Indemnitors to advance expenses or to provide indemnification for the same expenses or liabilities incurred by such Fund Director are secondary), (b) that it shall be required to advance the full amount of expenses incurred by such Fund Director and shall be liable for the full amount of all expenses, judgments, penalties, fines and amounts paid in settlement by or on behalf of any such Fund Director to the extent legally permitted and as required by the Restated Certificate or Bylaws of the Company (or any agreement between the Company and such Fund Director), without regard to any rights such Fund Director may have against the Fund Indemnitors, and, (c) that it irrevocably waives, relinquishes and releases the Fund Indemnitors from any and all claims against the Fund Indemnitors for contribution, subrogation or any other recovery of any kind in respect thereof. The Company further agrees that no advancement or payment by the Fund Indemnitors on behalf of any such Fund Director with respect to any claim for which such Fund Director has sought indemnification from the Company shall affect the foregoing and the Fund Indemnitors shall have a right of contribution and/or be subrogated to the extent of such advancement or payment to all of the rights of recovery of such Fund Director against the Company.

3.6 Confidentiality. Each Investor agrees, severally and not jointly, to use the same degree of care as such Investor uses to protect its own confidential information for any information obtained pursuant to this Agreement or otherwise as a stockholder of the Company which the Company identifies in writing as being proprietary or confidential and such Investor acknowledges that it will not, unless otherwise required by law or the rules of any national

securities exchange, association or marketplace, disclose such information without the prior written consent of the Company except such information that (a) was in the public domain prior to the time it was furnished to such Investor, (b) is or becomes (through no willful improper action or inaction by such Investor) generally available to the public, (c) was in its possession or known by such Investor without restriction prior to receipt from the Company, (d) was rightfully disclosed to such Investor by a third party without restriction or (e) was independently developed without any use of the Company's confidential information. Notwithstanding the foregoing, each Investor that is a limited partnership or limited liability company may disclose such proprietary or confidential information to any former partners or members who retained an economic interest in such Investor, current or prospective partner of the partnership or any subsequent partnership under common investment management, limited partner, general partner, member or management company of such Investor (or any employee or representative of any of the foregoing) (each of the foregoing Persons, a "**Permitted Disclosee**") or legal counsel, accountants or representatives for such Investor. Furthermore, nothing contained herein shall prevent any Investor or any Permitted Disclosee from (i) entering into any business, entering into any agreement with a third party, or investing in or engaging in investment discussions with any other company (whether or not competitive with the Company), provided that such Investor or Permitted Disclosee does not, except as permitted in accordance with this Section 3.6, disclose or otherwise make use of any proprietary or confidential information of the Company in connection with such activities, or (ii) making any disclosures required by law, rule, regulation or court or other governmental order.

3.7 Board Matters.

(a) Unless otherwise determined by the vote of a majority of the directors then in office, the Board shall meet at least quarterly in accordance with an agreed-upon schedule.

(b) The Company hereby covenants and agrees that it shall not, without approval of the Board, enter into or be a party to any transaction with any stockholder of the Company or any Affiliate of any stockholder of the Company, except for: (i) transactions contemplated by this Agreement, the Share Exchange Agreement, the other Ancillary Agreements (as defined in the Share Exchange Agreement) or that are disclosed in the Schedule of Exceptions (as defined in the Share Exchange Agreement); or (ii) transactions that are not individually material and that are made in the ordinary course of business.

3.8 Qualified Small Business. For so long as any of the shares of Preferred Stock are held by an Investor (or a transferee in whose hands such shares are eligible to qualify as "Qualified Small Business Stock" as defined in Section 1202(c) of the Internal Revenue Code of 1986, as amended (the "**Code**")), the Company will use its reasonable best efforts to comply with the reporting and recordkeeping requirements of Section 1202 of the Code, any regulations promulgated thereunder and any similar state laws and regulations, unless the Board determines that such qualification is inconsistent with the best interests of the Company and its stockholders.

3.9 Investors' Right of First Refusal. Subject to the terms and conditions specified in this Section 3.9, each Investor hereby grants to each other Investor a right of first refusal with respect to future sales by such Investor of all or a portion of the shares of the

Company's Preferred Stock (or Common Stock issued upon conversion thereof) ("**Preferred Shares**") held by such Investor. For purposes of this Section 3.9, the term "**Investor**" includes any general partners and Affiliates of an Investor. An Investor shall be entitled to apportion the right of first refusal hereby granted it among itself and its partners and Affiliates in such proportions as it deems appropriate.

Each time an Investor proposes to sell all or a portion of its Preferred Shares, the Investor shall offer to sell such Preferred Shares to each other Investor in accordance with the following provisions:

(a) The Investor proposing to sell all or a portion of its Preferred Shares ("**Selling Investor**") shall deliver a notice in accordance with Section 4.5 ("**Sale Notice**") to the other Investors stating (i) its bona fide intention to offer sell such Preferred Shares, (ii) the number of such Preferred Shares to be sold and (iii) the price and terms upon which it proposes to sell such Preferred Shares.

(b) By written notification received by the Selling Investor within twenty (20) calendar days after the giving of the Sale Notice, each other Investor may elect to purchase, at the price and on the terms specified in the Sale Notice, up to that portion of such Preferred Shares to be sold by the Selling Investor that equals the proportion that the number of Preferred Shares held by such Investor bears to the total number of Preferred Shares then held by all Investors other than the Selling Investor. At the expiration of such twenty (20) calendar day period, the Selling Investor shall promptly, in writing, notify each other Investor that elects to purchase all the shares available to it (a "**Purchasing Investor**") of any other Investor's failure to do likewise. During the ten (10) calendar day period commencing after the Selling Investor has given such notice to the Purchasing Investors, each Purchasing Investor may elect to purchase that portion of the Preferred Shares for which Investors were entitled to purchase, but which were not purchased by the Investors, that is equal to the proportion that the number of Preferred Shares held by such Purchasing Investor bears to the total number of Preferred Shares held by all Purchasing Investors who wish to purchase some of the unsubscribed shares.

(c) If all Preferred Shares that Investors are entitled to purchase pursuant to Section 3.9(b) of this Agreement are not elected to be obtained as provided in Section 3.9(b) of this Agreement, the Selling Investor may, during the ninety (90) day period following the expiration of the ten (10) day period provided in Section 3.9(b) of this Agreement, sell the remaining unpurchased portion of such Preferred Shares to any Person or Persons at a price not less than, and upon terms no more favorable to the purchaser than those specified in the Sale Notice. If the Selling Investor does not enter into an agreement for the sale of the Preferred Shares within such ninety (90) day period, or if such agreement is not consummated within sixty (60) days of the execution thereof, the right provided hereunder shall be deemed to be revived and such Preferred Shares shall not be sold unless first reoffered to the other Investors in accordance herewith.

(d) The right of first refusal in this Section 3.9 shall not be applicable to any transfer without consideration, (i) to an Affiliate, partner, member, limited partner, retired partner, retired member or stockholder of an Investor or (ii) to the Investor's ancestors, descendants or spouse or to trusts for the benefit of such persons or the Investor; provided that in the event of any transfer made pursuant to the foregoing exemptions, (A) the transferring

Investor shall inform the other Investors of such transfer or gift prior to effecting it and (B) the transferee shall enter into a written agreement to be bound by and comply with all provisions of this Agreement, as if it were an original Investor hereunder. Such transferred Preferred Shares shall remain "Preferred Shares" hereunder, and such pledgee, transferee or donee shall be treated as the "Investor" for purposes of this Agreement.

(e) The agreements set forth in this Section 3.9 shall terminate and be of no further force or effect upon the consummation of (i) the Company's sale of its Common Stock or other securities pursuant to a Registration Statement under the Act (other than a registration statement relating either to the sale of securities to employees of the Company pursuant to its stock option, stock purchase or similar plan or a SEC Rule 145 transaction) or (ii) a Liquidation Event, as that term is defined in the Restated Certificate.

3.10 Employee Vesting. All employees and consultants of the Company or its subsidiaries who receive options to purchase shares of the Company's capital stock or receive restricted stock units after the date hereof shall be required to execute option or restricted stock agreements, as applicable. Unless otherwise approved by the Board, these agreements shall provide for vesting of shares over a four (4) year period, with the first twenty-five percent (25%) of such shares vesting following twelve (12) months of continued employment or service (or the date of grant in the case of a grant to an existing employee or consultant) and the remaining shares vesting in equal monthly installments over the following thirty-six (36) months.

4. Miscellaneous.

4.1 Successors and Assigns. Except as otherwise provided herein, the terms and conditions of this Agreement shall inure to the benefit of and be binding upon the respective successors and assigns of the parties (including transferees of any shares of securities). Nothing in this Agreement, express or implied, is intended to confer upon any party other than the parties hereto or their respective successors and assigns any rights, remedies, obligations or liabilities under or by reason of this Agreement, except as expressly provided in this Agreement.

4.2 Governing Law. This Agreement shall be governed by and construed under the laws of the State of California as applied to agreements among California residents entered into and to be performed entirely within California.

4.3 Counterparts; Facsimile. This Agreement may be executed by electronic signature and in two (2) or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one (1) and the same instrument. Counterparts may be delivered by facsimile, electronic mail (including pdf) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes.

4.4 Titles and Subtitles. The titles and subtitles used in this Agreement are used for convenience only and are not to be considered in construing or interpreting this Agreement.

4.5 Notices. All notices and other communications given or made pursuant hereto shall be in writing and shall be deemed effectively given upon the earlier to occur of actual receipt or: (a) upon personal delivery to the party to be notified, (b) when sent by confirmed electronic mail or facsimile if sent during normal business hours of the recipient; if not, then on the next business day, (c) five (5) days after having been sent by registered or certified mail, return receipt requested, postage prepaid, or (d) one (1) day after deposit with a nationally recognized overnight courier, specifying next day delivery, with written verification of receipt. All notices and other communications shall be sent to the respective parties at the addresses set forth on the signature pages attached hereto (or at such other addresses as shall be specified by notice given in accordance with this Section 4.5).

4.6 Expenses. If any action at law or in equity is necessary to enforce or interpret the terms of this Agreement, the prevailing party shall be entitled to reasonable attorneys' fees, costs and necessary disbursements in addition to any other relief to which such party may be entitled.

4.7 Entire Agreement; Amendments and Waivers. This Agreement (including the Exhibits hereto, if any) constitutes the full and entire understanding and agreement among the parties with regard to the subjects hereof and thereof. Any term of this Agreement (other than Section 3.1, Section 3.2 and Section 3.3) may be amended and the observance of any term of this Agreement may be waived (either generally or in a particular instance and either retroactively or prospectively) only with the written consent of the Company and the Investors holding a majority of the Registrable Securities; provided, however, that in the event that (i) any amendment or waiver adversely affects any Holder in a manner that is materially different from other Holders, such amendment or waiver shall also require the written consent of such Holder, (ii) any amendment or waiver adversely affects the Series B Preferred Stock in a manner that is materially different from the other series of Preferred Stock, then such amendment or waiver shall also require the written consent of Investors holding a majority of the then outstanding shares of Series B Preferred Stock, (iii) any amendment or waiver adversely affects the Series A-1 Preferred Stock in a manner that is materially different from the other series of Preferred Stock, then such amendment or waiver shall also require the written consent of Amgen or (iv) such amendment or waiver adversely affects the obligations or rights of the Common Holders in a different manner than the other Holders, then such amendment or waiver shall also require the written consent of the Common Holders holding a majority of the shares of Common Stock then held by all Common Holders. The provisions of Section 3.1, Section 3.2 and Section 3.3 may be amended or waived (either generally or in a particular instance and either retroactively or prospectively) only with the written consent of the Company and the Major Investors holding a majority of the Registrable Securities then held by all of the Major Investors. Any amendment or waiver effected in accordance with this paragraph shall be binding upon each holder of any Registrable Securities, each future holder of all such Registrable Securities and the Company.

4.8 Severability. Whenever possible, each provision of this Agreement shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Agreement shall be held to be prohibited by or invalid under applicable law, such provision shall be ineffective only to the extent of such prohibition or invalidity, without invalidating the remainder of such provision or the remaining provisions of this Agreement.

4.9 Aggregation of Stock. All shares of Registrable Securities held or acquired by affiliated entities (including affiliated venture capital funds or venture capital funds under common investment management) or Persons shall be aggregated together for the purpose of determining the availability of any rights under this Agreement.

[*Remainder of page intentionally left blank*]

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first above written.

COMPANY:

ATARA BIOTHERAPEUTICS, INC.

/s/ Isaac Ciechanover
Isaac Ciechanover, Chief Executive Officer

Address: 3260 Bayshore Blvd
Brisbane, CA 94005

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first above written.

INVESTOR:

CELGENE CORPORATION

By: /s/ Angus Grant

Name: Angus Grant

Title: Vice President

Address: 86 Morris Avenue
Summit, NJ 07901

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first above written.

INVESTOR:

EcoR1 CAPITAL FUND, L.P.

By: /s/ Oleg Nodelman

Name: Oleg Nodelman

Title: Managing Member, EcoR1 Capital, LLC

Address: 409 Illinois Street
San Francisco, CA 94158

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first above written.

INVESTOR:

AMGEN INC.

By: /s/ David A. Piacquad

Name: David A. Piacquad

Title: VP Strategy & Corp. Development

Address: One Amgen Center Drive
Thousand Oaks, CA 91320

AMGEN INVESTMENTS LTD.

By: /s/ Janis C. Naeve

Name: Janis C. Naeve

Title: Managing Director

Address: Canon's Court
22 Victoria Street
Hamilton, HM 12
Bermuda

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first above written.

INVESTOR:

ALEXANDRIA EQUITIES, LLC

By: ALEXANDRIA REAL ESTATE EQUITIES, INC., managing member

By: /s/ Jennifer Banks

Name: Jennifer Banks

Title: EVP, General Counsel

Address: 385 East Colorado Boulevard, Suite 299
Pasadena, CA 91101

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first above written.

INVESTORS:

DAG Ventures V-QP, L.P.

By: /s/ Tom Goodrich
Name: Tom Goodrich
Title: Managing Director

Address: 251 Lytton Avenue, Suite 200
Palo Alto, CA 94301

DAG Ventures V, L.P.

By: /s/ Tom Goodrich
Name: Tom Goodrich
Title: Managing Director

Address: 251 Lytton Avenue, Suite 200
Palo Alto, CA 94301

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first above written.

INVESTOR:

FRANKLIN BERGER, an individual

By: /s/ Franklin Berger

Address: [*]

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first above written.

INVESTORS:

DOMAIN PARTNERS VIII, L.P.

By: One Palmer Square Associates VIII, L.L.C.,
its General Partner

By: /s/ Lisa Kraeutler
Lisa Kraeutler
Attorney-in-Fact

Address: One Palmer Square
Suite 515
Princeton, NJ 08542

DP VIII ASSOCIATES, L.P.

By: One Palmer Square Associates VIII, L.L.C.,
its General Partner

By: /s/ Lisa Kraeutler
Lisa Kraeutler
Attorney-in-Fact

Address: One Palmer Square
Suite 515
Princeton, NJ 08542

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first above written.

INVESTOR:

CONTROL EMPRESARIAL DE CAPITALES, S.A. DE C.V.

By: /s/ Raul Humberto Zepeda Ruiz

Name: Raul Humberto Zepeda Ruiz

Title: Attorney-in-Fact

Address: c/o Inmobiliaria Carso
Paseo de las Palmas 750
6th Floor
Lomas de Chapultepec
Mexico, D.F., 11000

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first above written.

INVESTOR:

GALLAGHER REVOCABLE TRUST

By: /s/ Carol G. Gallagher
Carol G. Gallagher, Trustee

Address: [*]

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first above written.

COMMON HOLDER/ INVESTOR:

KPCB HOLDINGS, INC., as nominee

By: /s/ Paul Vronsky
Paul Vronsky, General Counsel

Address: 2750 Sand Hill Road
Menlo Park, CA 94025

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first above written.

COMMON HOLDER/ INVESTOR:

ISAAC E. CIECHANOVER AND
ALLISON M. CIECHANOVER FAMILY TRUST
DATED 8/8/08

By: /s/ Isaac Ciechanover
Isaac Ciechanover, Trustee

Address: [*]

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first above written.

COMMON HOLDER:

Christopher M. Haqq, MD, PhD, an individual

By: /s/ Christopher M. Haqq

Address: c/o Atara Biotherapeutics, Inc.
2945 Townsgate Road, Suite 200
Westlake Village, CA 91361

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first above written.

INVESTORS:

BAUPOST PRIVATE INVESTMENTS A-1, L.L.C.

By: Baupost Limited Partnership 1983 A-1, its sole member

By: The Baupost Group, L.L.C., its managing general partner

By: /s/ James F. Mooney III
Name: James F. Mooney III
Title: Partner

BAUPOST PRIVATE INVESTMENTS B-1, L.L.C.

By: Baupost Limited Partnership 1983 B-1, its sole member

By: The Baupost Group, L.L.C., its managing general partner

By: /s/ James F. Mooney III
Name: James F. Mooney III
Title: Partner

BAUPOST PRIVATE INVESTMENTS C-1, L.L.C.

By: Baupost Limited Partnership 1983 C-1, its sole member

By: The Baupost Group, L.L.C., its managing general partner

By: /s/ James F. Mooney III
Name: James F. Mooney III
Title: Partner

Address: 10 St. James Avenue, 17th Floor
Boston, Massachusetts 02116

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first above written.

INVESTORS:

BAUPOST PRIVATE INVESTMENTS H-1, L.L.C.

By: HB Institutional Limited Partnership, its sole member

By: The Baupost Group, L.L.C., its managing general partner

By: /s/ James F. Mooney III
Name: James F. Mooney III
Title: Partner

BAUPOST PRIVATE INVESTMENTS P-1, L.L.C.

By: PB Institutional Limited Partnership, its sole member

By: The Baupost Group, L.L.C., its managing general partner

By: /s/ James F. Mooney III
Name: James F. Mooney III
Title: Partner

BAUPOST PRIVATE INVESTMENTS Y-1, L.L.C.

By: YB Institutional Limited Partnership, its sole member

By: The Baupost Group, L.L.C., its managing general partner

By: /s/ James F. Mooney III
Name: James F. Mooney III
Title: Partner

Address: 10 St. James Avenue, 17th Floor
Boston, Massachusetts 02116

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first above written.

INVESTORS:

BAUPOST PRIVATE INVESTMENTS BVI-1, L.L.C.

By: Baupost Value Partners, L.P.-I, its sole member

By: The Baupost Group, L.L.C., its managing general partner

By: /s/ James F. Mooney III
Name: James F. Mooney III
Title: Partner

BAUPOST PRIVATE INVESTMENTS BVII-1, L.L.C.

By: Baupost Value Partners, L.P.-II, its sole member

By: The Baupost Group, L.L.C., its managing general partner

By: /s/ James F. Mooney III
Name: James F. Mooney III
Title: Partner

BAUPOST PRIVATE INVESTMENTS BVIII-1, L.L.C.

By: Baupost Value Partners, L.P.-III, its sole member

By: The Baupost Group, L.L.C., its managing general partner

By: /s/ James F. Mooney III
Name: James F. Mooney III
Title: Partner

BAUPOST PRIVATE INVESTMENTS BVIV-1, L.L.C.

By: Baupost Value Partners, L.P.-IV, its sole member

By: The Baupost Group, L.L.C., its managing general partner

By: /s/ James F. Mooney III
Name: James F. Mooney III
Title: Partner

Address: 10 St. James Avenue, 17th Floor
Boston, Massachusetts 02116

Schedule A

SCHEDULE OF INVESTORS

Isaac E Ciechanover and Allison M
Ciechanover family trust dated 8/8/08
[*]

KPCB Holdings, Inc. as nominee
2750 Sand Hill Road
Menlo Park, CA 94025
legaldocs@kpcb.com

Domain Partners VIII, L.P.
DP VIII Associates, L.P.
One Palmer Square
Suite 515
Princeton, NJ 08542

DAG Ventures V-QP, L.P.
DAG Ventures V, L.P.
251 Lytton Avenue, Suite 200
Palo Alto, CA 94301

Alexandria Equities, LLC
385 East Colorado Blvd., Suite 299
Pasadena, CA 91101

Franklin Berger
[*]

Amgen Inc.
One Amgen Center Drive
Mail Stop 28-5-C
Thousand Oaks, CA 91320
jnaeve@amgen.com

Control Empresarial de Capitales, S.A. de C.V.
c/o Inmobiliaria Carso
Paseo de las Palmas 750
6th Floor
Lomas de Chapultepec
Mexico, D.F., 11000

Gallagher Revocable Trust
Carol G. Gallagher, Trustee
[*]

Celgene Corporation
86 Morris Avenue
Summit, NJ 07901

Amgen Investments Ltd.
Canon's Court 22 Victoria Street
Hamilton, HM 12 Bermuda

EcoR1 Capital Fund, L.P.
409 Illinois Street
San Francisco, CA 94158

BAUPOST PRIVATE INVESTMENTS A-1, L.L.C.
BAUPOST PRIVATE INVESTMENTS B-1, L.L.C.
BAUPOST PRIVATE INVESTMENTS C-1, L.L.C.
BAUPOST PRIVATE INVESTMENTS H-1, L.L.C.
BAUPOST PRIVATE INVESTMENTS P-1, L.L.C.
BAUPOST PRIVATE INVESTMENTS Y-1, L.L.C.
BAUPOST PRIVATE INVESTMENTS BVI-1, L.L.C.
BAUPOST PRIVATE INVESTMENTS BVII-1, L.L.C.
BAUPOST PRIVATE INVESTMENTS BVIII-1, L.L.C.
BAUPOST PRIVATE INVESTMENTS BVIV-1, L.L.C.
(shares held by Boomsail & Co, as nominee)
10 St. James Avenue, 17th Floor
Boston, Massachusetts 02116

Schedule A

Schedule B

SCHEDULE OF COMMON HOLDERS

Isaac E Ciechanover and Allison M
Ciechanover family trust dated 8/8/08
[*]

KPCB Holdings, Inc. as nominee
2750 Sand Hill Road
Menlo Park, CA 94025
legaldocs@kpcb.com

Christopher M. Haqq
c/o Atara Biotherapeutics, Inc.
2945 Townsgate Road, Suite 200,
Westlake Village, CA 91361
chaqq@atarabio.com

Exhibit 10.1

ATARA BIOTHERAPEUTICS, INC.

2014 EQUITY INCENTIVE PLAN

ADOPTED BY THE BOARD: MARCH 31, 2014
AMENDED AND RESTATED BY THE BOARD: MAY 28, 2014
APPROVED BY THE STOCKHOLDERS: JUNE 2, 2014
EFFECTIVE DATE: MARCH 31, 2014

1. GENERAL.

(a) Successor to and Continuation of Prior Plans.

(i) The Plan is the successor to and continuation of the Nina Biotherapeutics, Inc. 2012 Equity Incentive Plan, the Pinta Biotherapeutics, Inc. 2012 Equity Incentive Plan, and the Santa Maria Biotherapeutics 2012 Equity Incentive Plan, as amended (collectively, the "***Prior Plans***"). From and after 12:01 a.m. Pacific time on the Effective Date, no additional stock awards will be granted under the Prior Plan. All stock awards granted under the Prior Plan remain subject to the terms of the Prior Plan. All Awards granted on or after 12:01 a.m. Pacific Time on the Effective Date are subject to the terms of this Plan.

(ii) Any shares that would otherwise remain available for future grants under any of the Prior Plans as of 12:01 a.m. Pacific Time on the Effective Date ceased to be available under the Prior Plans at such time. Instead, that number of shares of Common Stock equal to the number of shares of the Company then available for future grants under the Prior Plans (the "***Prior Plans' Available Reserve***") was added to the Share Reserve (as further described in Section 3(a) below) and became immediately available for grants and issuance pursuant to Stock Awards under this Plan, up to the maximum number set forth in Section 3(a) below.

(iii) From and after 12:01 a.m. Pacific time on the Effective Date, a number of shares of Common Stock equal to the total number of shares of common stock subject to outstanding stock awards granted under the Prior Plan that (A) expire or terminate for any reason prior to exercise or settlement, (B) are forfeited because of the failure to meet a contingency or condition required to vest such shares or repurchased at the original issuance price, or (C) are otherwise reacquired or are withheld (or not issued) to satisfy a tax withholding obligation in connection with an award (the "***Returning Shares***") will immediately be added to the Share Reserve (as further described in Section 3(a) below) as and when such shares become Returning Shares (up to the maximum number set forth in Section 3(a)), and become available for issuance pursuant to Stock Awards granted hereunder.

(b) Eligible Award Recipients. Employees, Directors and Consultants are eligible to receive Awards.

(c) Available Awards. The Plan provides for the grant of the following Awards: (i) Incentive Stock Options; (ii) Nonstatutory Stock Options; (iii) Stock Appreciation Rights; (iv) Restricted Stock Awards; (v) Restricted Stock Unit Awards; (vi) Performance Stock Awards; (vii) Performance Cash Awards; and (viii) Other Stock Awards.

(d) Purpose. This Plan, through the granting of Awards, is intended to help the Company secure and retain the services of eligible award recipients, provide incentives for such persons to exert maximum efforts for the success of the Company and any Affiliate and provide a means by which the eligible recipients may benefit from increases in value of the Common Stock.

2. ADMINISTRATION.

(a) Administration by Board. The Board will administer the Plan. The Board may delegate administration of the Plan to a Committee or Committees, as provided in Section 2(c).

(b) Powers of Board. The Board will have the power, subject to, and within the limitations of, the express provisions of the Plan:

(i) To determine: (A) who will be granted Awards; (B) when and how each Award will be granted; (C) what type of Award will be granted; (D) the provisions of each Award (which need not be identical), including when a person will be permitted to exercise or otherwise receive cash or Common Stock under the Award; (E) the number of shares of Common Stock subject to, or the cash value of, an Award; and (F) the Fair Market Value applicable to a Stock Award.

(ii) To construe and interpret the Plan and Awards granted under it, and to establish, amend and revoke rules and regulations for administration of the Plan and Awards. The Board, in the exercise of these powers, may correct any defect, omission or inconsistency in the Plan or in any Award Agreement or in the written terms of a Performance Cash Award, in a manner and to the extent it will deem necessary or expedient to make the Plan or Award fully effective.

(iii) To settle all controversies regarding the Plan and Awards granted under it.

(iv) To accelerate, in whole or in part, the time at which an Award may be exercised or vest (or at which cash or shares of Common Stock may be issued).

(v) To suspend or terminate the Plan at any time. Except as otherwise provided in the Plan or an Award Agreement, suspension or termination of the Plan will not materially impair a Participant's rights under his or her then-outstanding Award without his or her written consent except as provided in subsection (viii) below.

(vi) To amend the Plan in any respect the Board deems necessary or advisable, including, without limitation, adopting amendments relating to Incentive Stock Options and nonqualified deferred compensation under Section 409A of the Code and/or making the Plan or Awards granted under the Plan exempt from or compliant with the requirements for Incentive Stock Options or exempt from or compliant with the requirements for nonqualified deferred compensation under Section 409A of the Code, subject to the limitations, if any, of applicable law. If required by applicable law or listing requirements, and except as provided in Section 9(a) relating to Capitalization Adjustments, the Company will seek stockholder approval of any amendment of the Plan that (A) materially increases the number of shares of Common Stock available for issuance under the Plan, (B) materially expands the class of individuals eligible to receive Awards under the Plan, (C) materially increases the benefits accruing to Participants under the Plan, (D) materially reduces the price at which shares of Common Stock may be issued or purchased under the Plan, (E) materially extends the term of the Plan, or (F) materially expands the types of Awards available for issuance under the Plan. Except as otherwise provided in the Plan (including subsection (viii) below) or an Award Agreement, no amendment of the Plan will materially impair a Participant's rights under an outstanding Award without the Participant's written consent.

(vii) To submit any amendment to the Plan for stockholder approval, including, but not limited to, amendments to the Plan intended to satisfy the requirements of (A) Section 162(m) of the

Code regarding the exclusion of performance-based compensation from the limit on corporate deductibility of compensation paid to Covered Employees, (B) Section 422 of the Code regarding "incentive stock options" or (C) Rule 16b-3 of Exchange Act or any successor rule.

(viii) To approve forms of Award Agreements for use under the Plan and to amend the terms of any one or more outstanding Awards, including, but not limited to, amendments to provide terms more favorable to the Participant than previously provided in the Award Agreement, subject to any specified limits in the Plan that are not subject to Board discretion. A Participant's rights under any Award will not be impaired by any such amendment unless the Company requests the consent of the affected Participant, and the Participant consents in writing. However, a Participant's rights will not be deemed to have been impaired by any such amendment if the Board, in its sole discretion, determines that the amendment, taken as a whole, does not materially impair the Participant's rights. In addition, subject to the limitations of applicable law, if any, the Board may amend the terms of any one or more Awards without the affected Participant's consent (A) to maintain the qualified status of the Award as an Incentive Stock Option under Section 422 of the Code, (B) to change the terms of an Incentive Stock Option, if such change results in impairment of the Award solely because it impairs the qualified status of the Award as an Incentive Stock Option under Section 422 of the Code, (C) to clarify the manner of exemption from, or to bring the Award into compliance with, Section 409A of the Code, or (D) to comply with other applicable laws or listing requirements.

(ix) Generally, to exercise such powers and to perform such acts as the Board deems necessary or expedient to promote the best interests of the Company and that are not in conflict with the provisions of the Plan and/or Award Agreements.

(x) To adopt such procedures and sub-plans as are necessary or appropriate (A) to permit or facilitate participation in the Plan by Employees, Directors or Consultants who are foreign nationals or employed outside the United States or (B) allow Awards to qualify for special tax treatment in a foreign jurisdiction; *provided* that Board approval will not be necessary for immaterial modifications to the Plan or any Award Agreement that are required for compliance with the laws of the relevant foreign jurisdiction.

(xi) To effect, with the consent of any adversely affected Participant, (A) the reduction of the exercise, purchase or strike price of any outstanding Stock Award; (B) the cancellation of any outstanding Stock Award and the grant in substitution therefore of a new (1) Option or SAR, (2) Restricted Stock Award, (3) Restricted Stock Unit Award, (4) Other Stock Award, (5) cash award and/or (6) award of other valuable consideration determined by the Board, in its sole discretion, with any such substituted award (x) covering the same or a different number of shares of Common Stock as the cancelled Stock Award and (y) granted under the Plan or another equity or compensatory plan of the Company; or (C) any other action that is treated as a repricing under generally accepted accounting principles.

(c) Delegation to Committee.

(i) General. The Board may delegate some or all of the administration of the Plan to a Committee or Committees. If administration of the Plan is delegated to a Committee, the Committee will have, in connection with the administration of the Plan, the powers theretofore possessed by the Board that have been delegated to the Committee, including the power to delegate to a subcommittee of the Committee any of the administrative powers the Committee is authorized to exercise (and references in this Plan to the Board will thereafter be to the Committee or subcommittee). Any delegation of administrative powers will be reflected in resolutions, not inconsistent with the provisions of the Plan, adopted from time to time by the Board or Committee (as applicable). The Committee may, at any time,

abolish the subcommittee and/or revest in the Committee any powers delegated to the subcommittee. The Board may retain the authority to concurrently administer the Plan with the Committee and may, at any time, revest in the Board some or all of the powers previously delegated.

(ii) Section 162(m) and Rule 16b-3 Compliance. The Committee may consist solely of two or more Outside Directors, in accordance with Section 162(m) of the Code, or solely of two or more Non-Employee Directors, in accordance with Rule 16b-3 of the Exchange Act.

(d) Delegation to an Officer. The Board may delegate to one (1) or more Officers the authority to do one or both of the following: (i) designate Employees who are not Officers to be recipients of Options and SARs (and, to the extent permitted by applicable law, other Stock Awards) and, to the extent permitted by applicable law, the terms of such Awards; and (ii) determine the number of shares of Common Stock to be subject to such Stock Awards granted to such Employees; *provided, however*, that the Board resolutions regarding such delegation will specify the total number of shares of Common Stock that may be subject to the Stock Awards granted by such Officer and that such Officer may not grant a Stock Award to himself or herself. Any such Stock Awards will be granted on the form of Stock Award Agreement most recently approved for use by the Committee or the Board, unless otherwise provided for in the resolutions approving the delegation authority. The Board may not delegate authority to an Officer who is acting solely in the capacity of an Officer (and not also as a Director) to determine the Fair Market Value (as defined below).

(e) Effect of Board's Decision. All determinations, interpretations and constructions made by the Board in good faith will not be subject to review by any person and will be final, binding and conclusive on all persons.

3. SHARES SUBJECT TO THE PLAN.

(a) Share Reserve.

(i) Subject to Section 9(a) relating to Capitalization Adjustments and the "evergreen" provision in Section 3(a)(ii), the aggregate number of shares of Common Stock that may be issued pursuant to Stock Awards from and after the Effective Date will not exceed 4,584,000 shares (the "***Share Reserve***"). The Share Reserve includes (A) 1,400,000 new shares, (B) the 2,030,257 shares that represented the Prior Plans' Available Reserve on the Effective Date, and (C) the Returning Shares, if any, in an amount not to exceed 1,153,743 shares (if and when the Returning Shares ever become available for grant under this Plan).

(ii) The Share Reserve will automatically increase on January 1st of each year, for a period of not more than ten years, commencing on January 1st of the year following the year in which the IPO Date occurs and ending on (and including) January 1, 2024, in an amount equal to 5% of the total number of shares of Company capital stock outstanding on December 31st of the preceding calendar year. Notwithstanding the foregoing, the Board may act prior to January 1st of a given year to provide that there will be no January 1st increase in the Share Reserve for such year or that the increase in the Share Reserve for such year will be a lesser number of shares of Common Stock than would otherwise occur pursuant to the preceding sentence.

(iii) For clarity, the Share Reserve is a limitation on the number of shares of Common Stock that may be issued under to the Plan. As a single share may be subject to grant more than once (*e.g.*, if a share subject to a Stock Award is forfeited, it may be made subject to grant again as provided in Section 3(b) below), the Share Reserve is not a limit on the number of Stock Awards that can be granted.

(iv) Shares may be issued under the terms of this Plan in connection with a merger or acquisition as permitted by NASDAQ Listing Rule 5635(c), NYSE Listed Company Manual Section 303A.08, AMEX Company Guide Section 711 or other applicable rule, and such issuance will not reduce the number of shares available for issuance under the Plan.

(b) Reversion of Shares to the Share Reserve. If a Stock Award or any portion of a Stock Award (i) expires or otherwise terminates without all of the shares covered by the Stock Award having been issued or (ii) is settled in cash (*i.e.*, the Participant receives cash rather than stock), such expiration, termination or settlement will not reduce (or otherwise offset) the number of shares of Common Stock that are available for issuance under the Plan. If any shares of Common Stock issued under a Stock Award are forfeited back to or repurchased by the Company because of the failure to meet a contingency or condition required to vest such shares in the Participant, then the shares that are forfeited or repurchased will revert to and again become available for issuance under the Plan. Any shares reacquired by the Company in satisfaction of tax withholding obligations on a Stock Award or as consideration for the exercise or purchase price of a Stock Award will again become available for issuance under the Plan.

(c) Incentive Stock Option Limit. Subject to Section 9(a) relating to Capitalization Adjustments, the aggregate maximum number of shares of Common Stock that may be issued on the exercise of Incentive Stock Options will be 15,000,000 shares of Common Stock.

(d) Section 162(m) Limitations. Subject to the provisions of Section 9(a) relating to Capitalization Adjustments, at such time as the Company may be subject to the applicable provisions of Section 162(m) of the Code, the following limitations shall apply.

(i) A maximum of 2,000,000 shares of Common Stock subject to Options, SARs and Other Stock Awards whose value is determined by reference to an increase over an exercise or strike price of at least 100% of the Fair Market Value on the date the Stock Award is granted may be granted to any one Participant during any one calendar year. Notwithstanding the foregoing, if any additional Options, SARs or Other Stock Awards whose value is determined by reference to an increase over an exercise or strike price of at least 100% of the Fair Market Value on the date the Stock Award are granted to any Participant during any calendar year, compensation attributable to the exercise of such additional Stock Awards will not satisfy the requirements to be considered "qualified performance-based compensation" under Section 162(m) of the Code unless such additional Stock Award is approved by the Company's stockholders.

(ii) A maximum of 2,000,000 shares of Common Stock subject to Performance Stock Awards may be granted to any one Participant during any one calendar year (whether the grant, vesting or exercise is contingent upon the attainment during the Performance Period of the Performance Goals).

(iii) A maximum of $2,000,000 may be granted as a Performance Cash Award to any one Participant during any one calendar year.

(e) Source of Shares. The stock issuable under the Plan will be shares of authorized but unissued or reacquired Common Stock, including shares repurchased by the Company on the open market or otherwise.

4. ELIGIBILITY.

(a) Eligibility for Specific Stock Awards. Incentive Stock Options may be granted only to employees of the Company or a "parent corporation" or "subsidiary corporation" thereof (as such terms are defined in Sections 424(e) and 424(f) of the Code). Stock Awards other than Incentive Stock Options may be granted to Employees, Directors and Consultants; *provided, however*, that Stock Awards may not

be granted to Employees, Directors and Consultants who are providing Continuous Service only to any "parent" of the Company, as such term is defined in Rule 405 of the Securities Act, unless (i) the stock underlying such Stock Awards is treated as "service recipient stock" under Section 409A of the Code (for example, because the Stock Awards are granted pursuant to a corporate transaction such as a spin off transaction), or (ii) the Company, in consultation with its legal counsel, has determined that such Stock Awards are otherwise exempt from or comply with the distribution requirements of Section 409A of the Code.

(b) Ten Percent Stockholders. A Ten Percent Stockholder will not be granted an Incentive Stock Option unless the exercise price of such Option is at least 110% of the Fair Market Value on the date of grant and the Option is not exercisable after the expiration of five (5) years from the date of grant.

5. PROVISIONS RELATING TO OPTIONS AND STOCK APPRECIATION RIGHTS.

Each Option or SAR will be in such form and will contain such terms and conditions as the Board deems appropriate. All Options will be separately designated Incentive Stock Options or Nonstatutory Stock Options at the time of grant, and, if certificates are issued, a separate certificate or certificates will be issued for shares of Common Stock purchased on exercise of each type of Option. If an Option is not specifically designated as an Incentive Stock Option, or if an Option is designated as an Incentive Stock Option but some portion or all of the Option fails to qualify as an Incentive Stock Option under the applicable rules, then the Option (or portion thereof) will be a Nonstatutory Stock Option. The provisions of separate Options or SARs need not be identical; *provided, however*, that each Award Agreement will conform to (through incorporation of provisions hereof by reference in the applicable Award Agreement or otherwise) the substance of each of the following provisions:

(a) Term. Subject to the provisions of Section 4(b) regarding Ten Percent Stockholders, no Option or SAR will be exercisable after the expiration of 10 years from the date of its grant or such shorter period specified in the Award Agreement.

(b) Exercise Price. Subject to the provisions of Section 4(b) regarding Ten Percent Stockholders, the exercise or strike price of each Option or SAR will be not less than 100% of the Fair Market Value of the Common Stock subject to the Option or SAR on the date the Award is granted. Notwithstanding the foregoing, an Option or SAR may be granted with an exercise or strike price lower than 100% of the Fair Market Value of the Common Stock subject to the Award if such Award is granted pursuant to an assumption of or substitution for another option or stock appreciation right pursuant to a Corporate Transaction and in a manner consistent with the provisions of Section 409A of the Code and, if applicable, Section 424(a) of the Code. Each SAR will be denominated in shares of Common Stock equivalents.

(c) Purchase Price for Options. The purchase price of Common Stock acquired pursuant to the exercise of an Option may be paid, to the extent permitted by applicable law and as determined by the Board in its sole discretion, by any combination of the methods of payment set forth below. The Board will have the authority to grant Options that do not permit all of the following methods of payment (or otherwise restrict the ability to use certain methods) and to grant Options that require the consent of the Company to use a particular method of payment. The permitted methods of payment are as follows:

(i) by cash, check, bank draft or money order payable to the Company;

(ii) pursuant to a program developed under Regulation T as promulgated by the Federal Reserve Board that, prior to the issuance of the stock subject to the Option, results in either the receipt of cash (or check) by the Company or the receipt of irrevocable instructions to pay the aggregate exercise price to the Company from the sales proceeds;

(iii) by delivery to the Company (either by actual delivery or attestation) of shares of Common Stock;

(iv) if an Option is a Nonstatutory Stock Option, by a "net exercise" arrangement pursuant to which the Company will reduce the number of shares of Common Stock issuable upon exercise by the largest whole number of shares with a Fair Market Value that does not exceed the aggregate exercise price; *provided, however*, that the Company will accept cash or other payment from the Participant to the extent of any remaining balance of the aggregate exercise price not satisfied by such reduction in the number of whole shares to be issued. Shares of Common Stock will no longer be subject to an Option and will not be exercisable thereafter to the extent that (A) shares issuable upon exercise are used to pay the exercise price pursuant to the "net exercise," (B) shares are delivered to the Participant as a result of such exercise, and (C) shares are withheld to satisfy tax withholding obligations; or

(v) in any other form of legal consideration that may be acceptable to the Board and specified in the applicable Award Agreement.

(d) Exercise and Payment of a SAR. To exercise any outstanding SAR, the Participant must provide written notice of exercise to the Company in compliance with the provisions of the Stock Appreciation Right Agreement evidencing such SAR. The appreciation distribution payable on the exercise of a SAR will be not greater than an amount equal to the excess of (A) the aggregate Fair Market Value (on the date of the exercise of the SAR) of a number of shares of Common Stock equal to the number of Common Stock equivalents in which the Participant is vested under such SAR (with respect to which the Participant is exercising the SAR on such date), over (B) the aggregate strike price of the number of Common Stock equivalents with respect to which the Participant is exercising the SAR on such date. The appreciation distribution may be paid in Common Stock, in cash, in any combination of the two or in any other form of consideration, as determined by the Board and contained in the Award Agreement evidencing such SAR.

(e) Transferability of Options and SARs. The Board may, in its sole discretion, impose such limitations on the transferability of Options and SARs as the Board will determine. In the absence of such a determination by the Board to the contrary, the following restrictions on the transferability of Options and SARs will apply:

(i) Restrictions on Transfer. An Option or SAR will not be transferable except by will or by the laws of descent and distribution (or pursuant to subsections (ii) and (iii) below), and will be exercisable during the lifetime of the Participant only by the Participant. The Board may permit transfer of the Option or SAR in a manner that is not prohibited by applicable tax and securities laws. Except as explicitly provided herein, neither an Option nor a SAR may be transferred for consideration.

(ii) Domestic Relations Orders. Subject to the approval of the Board or a duly authorized Officer, an Option or SAR may be transferred pursuant to the terms of a domestic relations order, official marital settlement agreement or other divorce or separation instrument as permitted by U.S. Treasury Regulation 1.421-1(b)(2). If an Option is an Incentive Stock Option, such Option may be deemed to be a Nonstatutory Stock Option as a result of such transfer.

(iii) Beneficiary Designation. Subject to the approval of the Board or a duly authorized Officer, a Participant may, by delivering written notice to the Company, in a form approved by the Company (or the designated broker), designate a third party who, on the death of the Participant, will

thereafter be entitled to exercise the Option or SAR and receive the Common Stock or other consideration resulting from such exercise. In the absence of such a designation, the executor or administrator of the Participant's estate will be entitled to exercise the Option or SAR and receive the Common Stock or other consideration resulting from such exercise. However, the Company may prohibit designation of a beneficiary at any time, including due to any conclusion by the Company that such designation would be inconsistent with the provisions of applicable laws.

(f) Vesting Generally. The total number of shares of Common Stock subject to an Option or SAR may vest and therefore become exercisable in periodic installments that may or may not be equal. The Option or SAR may be subject to such other terms and conditions on the time or times when it may or may not be exercised (which may be based on the satisfaction of Performance Goals or other criteria) as the Board may deem appropriate. The vesting provisions of individual Options or SARs may vary. The provisions of this Section 5(f) are subject to any Option or SAR provisions governing the minimum number of shares of Common Stock as to which an Option or SAR may be exercised.

(g) Termination of Continuous Service. Except as otherwise provided in the applicable Award Agreement, or other agreement between the Participant and the Company, if a Participant's Continuous Service terminates (other than for Cause and other than upon the Participant's death or Disability), the Participant may exercise his or her Option or SAR (to the extent that the Participant was entitled to exercise such Award as of the date of termination of Continuous Service) within the period of time ending on the earlier of (i) the date three (3) months following the termination of the Participant's Continuous Service and (ii) the expiration of the term of the Option or SAR as set forth in the applicable Award Agreement. If, after termination of Continuous Service, the Participant does not exercise his or her Option or SAR within the applicable time frame, the Option or SAR will terminate.

(h) Extension of Termination Date. Except as otherwise provided in the applicable Award Agreement, if the exercise of an Option or SAR following the termination of the Participant's Continuous Service (other than for Cause and other than upon the Participant's death or Disability) would be prohibited at any time solely because the issuance of shares of Common Stock would violate the registration requirements under the Securities Act, then the Option or SAR will terminate on the earlier of (i) the expiration of a total period of three (3) months (that need not be consecutive) after the termination of the Participant's Continuous Service during which the exercise of the Option or SAR would not be in violation of such registration requirements, and (ii) the expiration of the term of the Option or SAR as set forth in the applicable Award Agreement. In addition, unless otherwise provided in a Participant's applicable Award Agreement, if the sale of any Common Stock received upon exercise of an Option or SAR following the termination of the Participant's Continuous Service (other than for Cause) would violate the Company's insider trading policy, then the Option or SAR will terminate on the earlier of (i) the expiration of a period of months (that need not be consecutive) equal to the applicable post-termination exercise period after the termination of the Participant's Continuous Service during which the sale of the Common Stock received upon exercise of the Option or SAR would not be in violation of the Company's insider trading policy, or (ii) the expiration of the term of the Option or SAR as set forth in the applicable Award Agreement.

(i) Disability of Participant. Except as otherwise provided in the applicable Award Agreement, or other agreement between the Participant and the Company, if a Participant's Continuous Service terminates as a result of the Participant's Disability, the Participant may exercise his or her Option or SAR (to the extent that the Participant was entitled to exercise such Option or SAR as of the date of termination of Continuous Service), but only within such period of time ending on the earlier of (i) the date 12 months following such termination of Continuous Service, and (ii) the expiration of the term of the Option or SAR as set forth in the applicable Award Agreement. If, after termination of Continuous Service, the Participant does not exercise his or her Option or SAR within the applicable time frame, the Option or SAR (as applicable) will terminate.

(j) Death of Participant. Except as otherwise provided in the applicable Award Agreement, or other agreement between the Participant and the Company, if (i) a Participant's Continuous Service terminates as a result of the Participant's death, or (ii) the Participant dies within the period (if any) specified in the applicable Award Agreement for exercisability after the termination of the Participant's Continuous Service (for a reason other than death), then the Option or SAR may be exercised (to the extent the Participant was entitled to exercise such Option or SAR as of the date of death) by the Participant's estate, by a person who acquired the right to exercise the Option or SAR by bequest or inheritance or by a person designated to exercise the Option or SAR upon the Participant's death, but only within the period ending on the earlier of (i) the date 18 months following the date of death, and (ii) the expiration of the term of such Option or SAR as set forth in the applicable Award Agreement. If, after the Participant's death, the Option or SAR is not exercised within the applicable time frame, the Option or SAR will terminate.

(k) Termination for Cause. Except as explicitly provided otherwise in a Participant's Award Agreement or other individual written agreement between the Company or any Affiliate and the Participant, if a Participant's Continuous Service is terminated for Cause, the Option or SAR will terminate upon the date on which the event giving rise to the termination for Cause first occurred, and the Participant will be prohibited from exercising his or her Option or SAR from and after the date on which the event giving rise to the termination for Cause first occurred (or, if required by law, the date of termination of Continuous Service). If a Participant's Continuous Service is suspended pending an investigation of the existence of Cause, all of the Participant's rights under the Option or SAR will also be suspended during the investigation period.

(l) Non-Exempt Employees. If an Option or SAR is granted to an Employee who is a non-exempt employee for purposes of the U.S. Fair Labor Standards Act of 1938, as amended, the Option or SAR will not be first exercisable for any shares of Common Stock until at least 6 months following the date of grant of the Option or SAR (although the Award may vest prior to such date). Consistent with the provisions of the U.S. Worker Economic Opportunity Act, (i) if such non-exempt Employee dies or suffers a Disability, (ii) upon a Corporate Transaction in which such Option or SAR is not assumed, continued, or substituted, (iii) upon a Change in Control, or (iv) upon the non-exempt Employee's retirement (as such term may be defined in the non-exempt Employee's applicable Award Agreement, in another agreement between the non-exempt Employee and the Company, or, if no such definition, in accordance with the Company's then current employment policies and guidelines), the vested portion of any Options and SARs may be exercised earlier than 6 months following the date of grant. The foregoing provision is intended to operate so that any income derived by a non-exempt Employee in connection with the exercise or vesting of an Option or SAR will be exempt from his or her regular rate of pay. To the extent permitted and/or required for compliance with the U.S. Worker Economic Opportunity Act to ensure that any income derived by a non-exempt Employee in connection with the exercise, vesting or issuance of any shares under any other Stock Award will be exempt from such employee's regular rate of pay, the provisions of this paragraph will apply to all Stock Awards and are hereby incorporated by reference into such Stock Award Agreements.

6. PROVISIONS OF STOCK AWARDS OTHER THAN OPTIONS AND SARS.

(a) Restricted Stock Awards. Each Restricted Stock Award Agreement will be in such form and will contain such terms and conditions as the Board deems appropriate. To the extent consistent with the Company's bylaws, at the Board's election, shares of Common Stock may be (x) held in book entry form subject to the Company's instructions until any restrictions relating to the Restricted Stock

Award lapse, or (y) evidenced by a certificate, which certificate will be held in such form and manner as determined by the Board. The terms and conditions of Restricted Stock Award Agreements may change from time to time, and the terms and conditions of separate Restricted Stock Award Agreements need not be identical. Each Restricted Stock Award Agreement will conform to (through incorporation of the provisions hereof by reference in the agreement or otherwise) the substance of each of the following provisions:

(i) Consideration. A Restricted Stock Award may be awarded in consideration for (A) cash, check, bank draft or money order payable to the Company, (B) past services to the Company or an Affiliate, or (C) any other form of legal consideration (including future services) that may be acceptable to the Board, in its sole discretion, and permissible under applicable law.

(ii) Vesting. Shares of Common Stock awarded under the Restricted Stock Award Agreement may be subject to forfeiture to the Company in accordance with a vesting schedule to be determined by the Board.

(iii) Termination of Participant's Continuous Service. If a Participant's Continuous Service terminates, the Company may receive through a forfeiture condition or a repurchase right, any or all of the shares of Common Stock held by the Participant that have not vested as of the date of termination of Continuous Service under the terms of the Restricted Stock Award Agreement.

(iv) Transferability. Rights to acquire shares of Common Stock under the Restricted Stock Award Agreement will be transferable by the Participant only upon such terms and conditions as are set forth in the Restricted Stock Award Agreement, as the Board will determine in its sole discretion, so long as Common Stock awarded under the Restricted Stock Award Agreement remains subject to the terms of the Restricted Stock Award Agreement.

(v) Dividends. A Restricted Stock Award Agreement may provide that any dividends paid on Restricted Stock will be subject to the same vesting and forfeiture restrictions as apply to the shares subject to the Restricted Stock Award to which they relate.

(b) Restricted Stock Unit Awards. Each Restricted Stock Unit Award Agreement will be in such form and will contain such terms and conditions as the Board deems appropriate. The terms and conditions of Restricted Stock Unit Award Agreements may change from time to time, and the terms and conditions of separate Restricted Stock Unit Award Agreements need not be identical. Each Restricted Stock Unit Award Agreement will conform to (through incorporation of the provisions hereof by reference in the Agreement or otherwise) the substance of each of the following provisions:

(i) Consideration. At the time of grant of a Restricted Stock Unit Award, the Board will determine the consideration, if any, to be paid by the Participant upon delivery of each share of Common Stock subject to the Restricted Stock Unit Award. The consideration to be paid (if any) by the Participant for each share of Common Stock subject to a Restricted Stock Unit Award may be paid in any form of legal consideration that may be acceptable to the Board, in its sole discretion, and permissible under applicable law.

(ii) Vesting. At the time of the grant of a Restricted Stock Unit Award, the Board may impose such restrictions on or conditions to the vesting of the Restricted Stock Unit Award as it, in its sole discretion, deems appropriate.

(iii) Payment. A Restricted Stock Unit Award may be settled by the delivery of shares of Common Stock, their cash equivalent, any combination thereof or in any other form of consideration, as determined by the Board and contained in the Restricted Stock Unit Award Agreement.

(iv) Additional Restrictions. At the time of the grant of a Restricted Stock Unit Award, the Board, as it deems appropriate, may impose such restrictions or conditions that delay the delivery of the shares of Common Stock (or their cash equivalent) subject to a Restricted Stock Unit Award to a time after the vesting of such Restricted Stock Unit Award.

(v) Dividend Equivalents. Dividend equivalents may be credited in respect of shares of Common Stock covered by a Restricted Stock Unit Award, as determined by the Board and contained in the Restricted Stock Unit Award Agreement. At the sole discretion of the Board, such dividend equivalents may be converted into additional shares of Common Stock covered by the Restricted Stock Unit Award in such manner as determined by the Board. Any additional shares covered by the Restricted Stock Unit Award credited by reason of such dividend equivalents will be subject to all of the same terms and conditions of the underlying Restricted Stock Unit Award Agreement to which they relate.

(vi) Termination of Participant's Continuous Service. Except as otherwise provided in the applicable Restricted Stock Unit Award Agreement, such portion of the Restricted Stock Unit Award that has not vested will be forfeited upon the Participant's termination of Continuous Service.

(c) Performance Awards.

(i) Performance Stock Awards. A Performance Stock Award is a Stock Award (covering a number of shares not in excess of that set forth in Section 3(d) above) that is payable (including that may be granted, vest or exercised) contingent upon the attainment during a Performance Period of certain Performance Goals. A Performance Stock Award may, but need not, require the completion of a specified period of Continuous Service. The length of any Performance Period, the Performance Goals to be achieved during the Performance Period, and the measure of whether and to what degree such Performance Goals have been attained will be conclusively determined by the Committee (or, if not required for compliance with Section 162(m) of the Code, the Board), in its sole discretion. In addition, to the extent permitted by applicable law and the applicable Award Agreement, the Board may determine that cash may be used in payment of Performance Stock Awards.

(ii) Performance Cash Awards. A Performance Cash Award is a cash award (for a dollar value not in excess of that set forth in Section 3(d)(iii) above) that is payable contingent upon the attainment during a Performance Period of certain Performance Goals. A Performance Cash Award may also require the completion of a specified period of Continuous Service. At the time of grant of a Performance Cash Award, the length of any Performance Period, the Performance Goals to be achieved during the Performance Period, and the measure of whether and to what degree such Performance Goals have been attained will be conclusively determined by the Committee (or, if not required for compliance with Section 162(m) of the Code, the Board), in its sole discretion. The Board may specify the form of payment of Performance Cash Awards, which may be cash or other property, or may provide for a Participant to have the option for his or her Performance Cash Award, or such portion thereof as the Board may specify, to be paid in whole or in part in cash or other property.

(iii) Board Discretion. The Board retains the discretion to reduce or eliminate the compensation or economic benefit due upon attainment of Performance Goals and to define the manner of calculating the Performance Criteria it selects to use for a Performance Period.

(iv) Section 162(m) Compliance. Unless otherwise permitted in compliance with the requirements of Section 162(m) of the Code with respect to an Award intended to qualify as "performance-based compensation" thereunder, the Committee will establish the Performance Goals applicable to, and the formula for calculating the amount payable under, the Award no later than the earlier of (A) the date 90 days after the commencement of the applicable Performance Period, and (B) the date on which 25% of the Performance Period has elapsed, and in any event at a time when the achievement of the applicable Performance Goals remains substantially uncertain. Prior to the payment of any compensation under an Award intended to qualify as "performance-based compensation" under Section 162(m) of the Code, the Committee will certify in writing the extent to which any Performance Goals and any other material terms under such Award have been satisfied (other than in cases where such relate solely to the increase in the value of the Common Stock). Notwithstanding satisfaction of any completion of any Performance Goals, the number of shares of Common Stock, Options, cash or other benefits granted, issued, retainable and/or vested under an Award on account of satisfaction of such Performance Goals may be reduced by the Committee on the basis of such further considerations as the Committee, in its sole discretion, will determine.

(d) Other Stock Awards. Other forms of Stock Awards valued in whole or in part by reference to, or otherwise based on, Common Stock, including the appreciation in value thereof (*e.g.*, options or stock rights with an exercise price or strike price less than 100% of the Fair Market Value of the Common Stock at the time of grant) may be granted either alone or in addition to Stock Awards provided for under Section 5 and the preceding provisions of this Section 6. Subject to the provisions of the Plan, the Board will have sole and complete authority to determine the persons to whom and the time or times at which such Other Stock Awards will be granted, the number of shares of Common Stock (or the cash equivalent thereof) to be granted pursuant to such Other Stock Awards and all other terms and conditions of such Other Stock Awards.

7. COVENANTS OF THE COMPANY.

(a) Availability of Shares. The Company will keep available at all times the number of shares of Common Stock reasonably required to satisfy then-outstanding Stock Awards.

(b) Securities Law Compliance. The Company will seek to obtain from each regulatory commission or agency having jurisdiction over the Plan such authority as may be required to grant Stock Awards and to issue and sell shares of Common Stock upon exercise of the Stock Awards; *provided, however,* that this undertaking will not require the Company to register under the Securities Act the Plan, any Stock Award or any Common Stock issued or issuable pursuant to any such Stock Award. If, after reasonable efforts and at a reasonable cost, the Company is unable to obtain from any such regulatory commission or agency the authority that counsel for the Company deems necessary for the lawful issuance and sale of Common Stock under the Plan, the Company will be relieved from any liability for failure to issue and sell Common Stock upon exercise of such Stock Awards unless and until such authority is obtained. A Participant will not be eligible for the grant of an Award or the subsequent issuance of cash or Common Stock pursuant to the Award if such grant or issuance would be in violation of any applicable securities law.

(c) No Obligation to Notify or Minimize Taxes. The Company will have no duty or obligation to any Participant to advise such holder as to the time or manner of exercising such Stock Award. Furthermore, the Company will have no duty or obligation to warn or otherwise advise such holder of a pending termination or expiration of an Award or a possible period in which the Award may not be exercised. The Company has no duty or obligation to minimize the tax consequences of an Award to the holder of such Award.

8. MISCELLANEOUS.

(a) Use of Proceeds from Sales of Common Stock. Proceeds from the sale of shares of Common Stock pursuant to Stock Awards will constitute general funds of the Company.

(b) Corporate Action Constituting Grant of Awards. Corporate action constituting a grant by the Company of an Award to any Participant will be deemed completed as of the date of such corporate action, unless otherwise determined by the Board, regardless of when the instrument, certificate, or letter evidencing the Award is communicated to, or actually received or accepted by, the Participant. In the event that the corporate records (*e.g.*, Board consents, resolutions or minutes) documenting the corporate action constituting the grant contain terms (*e.g.*, exercise price, vesting schedule or number of shares) that are inconsistent with those in the Award Agreement as a result of a clerical error in the papering of the Award Agreement, the corporate records will control and the Participant will have no legally binding right to the incorrect term in the Award Agreement.

(c) Stockholder Rights. No Participant will be deemed to be the holder of, or to have any of the rights of a holder with respect to, any shares of Common Stock subject to a Stock Award unless and until (i) such Participant has satisfied all requirements for exercise of, or the issuance of shares of Common Stock under, the Stock Award pursuant to its terms, and (ii) the issuance of the Common Stock subject to such Stock Award has been entered into the books and records of the Company.

(d) No Employment or Other Service Rights. Nothing in the Plan, any Award Agreement or any other instrument executed thereunder or in connection with any Award granted pursuant thereto will confer upon any Participant any right to continue to serve the Company or an Affiliate in the capacity in effect at the time the Award was granted or will affect the right of the Company or an Affiliate to terminate (i) the employment of an Employee with or without notice and with or without cause, including, but not limited to, Cause, (ii) the service of a Consultant pursuant to the terms of such Consultant's agreement with the Company or an Affiliate, or (iii) the service of a Director pursuant to the bylaws of the Company or an Affiliate, and any applicable provisions of the corporate law of the state in which the Company or the Affiliate is incorporated, as the case may be.

(e) Change in Time Commitment. In the event a Participant's regular level of time commitment in the performance of his or her services for the Company and any Affiliates is reduced (for example, and without limitation, if the Participant is an Employee of the Company and the Employee has a change in status from a full-time Employee to a part-time Employee or takes an extended leave of absence) after the date of grant of any Award to the Participant, the Board has the right in its sole discretion to (i) make a corresponding reduction in the number of shares or cash amount subject to any portion of such Award that is scheduled to vest or become payable after the date of such change in time commitment, and (ii) in lieu of or in combination with such a reduction, extend the vesting or payment schedule applicable to such Award. In the event of any such reduction, the Participant will have no right with respect to any portion of the Award that is so reduced or extended.

(f) Incentive Stock Option Limitations. To the extent that the aggregate Fair Market Value (determined at the time of grant) of Common Stock with respect to which Incentive Stock Options are exercisable for the first time by any Optionholder during any calendar year (under all plans of the Company and any Affiliates) exceeds $100,000 (or such other limit established in the Code) or otherwise does not comply with the rules governing Incentive Stock Options, the Options or portions thereof that exceed such limit (according to the order in which they were granted) or otherwise do not comply with such rules will be treated as Nonstatutory Stock Options, notwithstanding any contrary provision of the applicable Option Agreement(s).

(g) Investment Assurances. The Company may require a Participant, as a condition of exercising or acquiring Common Stock under any Stock Award, (i) to give written assurances satisfactory to the Company as to the Participant's knowledge and experience in financial and business matters and/or to employ a purchaser representative reasonably satisfactory to the Company who is knowledgeable and experienced in financial and business matters and that he or she is capable of evaluating, alone or together with the purchaser representative, the merits and risks of exercising the Stock Award, and (ii) to give written assurances satisfactory to the Company stating that the Participant is acquiring Common Stock subject to the Stock Award for the Participant's own account and not with any present intention of selling or otherwise distributing the Common Stock. The foregoing requirements, and any assurances given pursuant to such requirements, will be inoperative if (i) the issuance of the shares upon the exercise of a Stock Award or acquisition of Common Stock under the Stock Award has been registered under a then currently effective registration statement under the Securities Act, or (ii) as to any particular requirement, a determination is made by counsel for the Company that such requirement need not be met in the circumstances under the then applicable securities laws. The Company may, upon advice of counsel to the Company, place legends on stock certificates issued under the Plan as such counsel deems necessary or appropriate in order to comply with applicable securities laws, including, but not limited to, legends restricting the transfer of the Common Stock.

(h) Withholding Obligations. Unless prohibited by the terms of an Award Agreement, the Company may, in its sole discretion, satisfy any U.S. federal, state, local, foreign or other tax withholding obligation relating to an Award by any of the following means or by a combination of such means: (i) causing the Participant to tender a cash payment; (ii) withholding shares of Common Stock from the shares of Common Stock issued or otherwise issuable to the Participant in connection with the Award; *provided, however*, that no shares of Common Stock are withheld with a value exceeding the minimum amount of tax required to be withheld by law (or such other amount as may be necessary to avoid classification of the Stock Award as a liability for financial accounting purposes); (iii) withholding cash from an Award settled in cash; (iv) withholding payment from any amounts otherwise payable to the Participant, including proceeds from the sale of shares of Common Stock issued pursuant to a Stock Award; or (v) by such other method as may be set forth in the Award Agreement.

(i) Electronic Delivery. Any reference herein to a "written" agreement or document will include any agreement or document delivered electronically, filed publicly at www.sec.gov (or any successor website thereto), or posted on the Company's intranet (or other shared electronic medium controlled by the Company to which the Participant has access).

(j) Deferrals. To the extent permitted by applicable law, the Board, in its sole discretion, may determine that the delivery of Common Stock or the payment of cash, upon the exercise, vesting or settlement of all or a portion of any Award may be deferred and may establish programs and procedures for deferral elections to be made by Participants. Deferrals by Participants will be made in accordance with Section 409A of the Code (to the extent applicable to a Participant). Consistent with Section 409A of the Code, the Board may provide for distributions while a Participant is still an employee or otherwise providing services to the Company. The Board is authorized to make deferrals of Awards and determine when, and in what annual percentages, Participants may receive payments, including lump sum payments, following the Participant's termination of Continuous Service, and implement such other terms and conditions consistent with the provisions of the Plan and in accordance with applicable law.

(k) Compliance with Section 409A. Unless otherwise expressly provided for in an Award Agreement, the Plan and Award Agreements will be interpreted to the greatest extent possible in a manner that makes the Plan and the Awards granted hereunder exempt from Section 409A of the Code, and, to the extent not so exempt, in compliance with Section 409A of the Code. If the Board determines that any Award granted hereunder is not exempt from and is therefore subject to Section 409A of the

Code, the Award Agreement evidencing such Award will incorporate the terms and conditions necessary to avoid the consequences specified in Section 409A(a)(1) of the Code, and to the extent an Award Agreement is silent on terms necessary for compliance, such terms are hereby incorporated by reference into the Award Agreement. Notwithstanding anything to the contrary in this Plan (and unless the Award Agreement specifically provides otherwise), if the shares of Common Stock are publicly traded, and if a Participant holding an Award that constitutes "deferred compensation" under Section 409A of the Code is a "specified employee" for purposes of Section 409A of the Code, no distribution or payment of any amount that is due because of a "separation from service" (as defined in Section 409A of the Code without regard to alternative definitions thereunder) will be issued or paid before the date that is six (6) months following the date of such Participant's "separation from service" or, if earlier, the date of the Participant's death, unless such distribution or payment can be made in a manner that complies with Section 409A of the Code, and any amounts so deferred will be paid in a lump sum on the day after such six (6) month period elapses, with the balance paid thereafter on the original schedule.

(l) Clawback/Recovery. All Awards granted under the Plan will be subject to recoupment in accordance with any clawback policy that the Company is required to adopt pursuant to the listing standards of any national securities exchange or association on which the Company's securities are listed or as is otherwise required by the Dodd-Frank Wall Street Reform and Consumer Protection Act or other applicable law. In addition, the Board may impose such other clawback, recovery or recoupment provisions in an Award Agreement as the Board determines necessary or appropriate, including, but not limited to, a reacquisition right in respect of previously acquired shares of Common Stock or other cash or property upon the occurrence of Cause. No recovery of compensation under such a clawback policy will be an event giving rise to a right to resign for "good reason" or "constructive termination" (or similar term) under any agreement with the Company or an Affiliate.

9. ADJUSTMENTS UPON CHANGES IN COMMON STOCK; OTHER CORPORATE EVENTS.

(a) Capitalization Adjustments. In the event of a Capitalization Adjustment, the Board will appropriately and proportionately adjust: (i) the class(es) and maximum number of securities subject to the Plan pursuant to Section 3(a); (ii) the class(es) and maximum number of securities that may be issued pursuant to the exercise of Incentive Stock Options pursuant to Section 3(c); (iii) the class(es) and maximum number of securities that may be awarded to any person pursuant to Section 3(d) and (iv) the class(es) and number of securities and price per share of stock subject to outstanding Stock Awards. The Board will make such adjustments, and its determination will be final, binding and conclusive.

(b) Dissolution or Liquidation. Except as otherwise provided in the Stock Award Agreement, in the event of a dissolution or liquidation of the Company, all outstanding Stock Awards (other than Stock Awards consisting of vested and outstanding shares of Common Stock not subject to a forfeiture condition or the Company's right of repurchase) will terminate immediately prior to the completion of such dissolution or liquidation, and the shares of Common Stock subject to the Company's repurchase rights or subject to a forfeiture condition may be repurchased or reacquired by the Company notwithstanding the fact that the holder of such Stock Award is providing Continuous Service; *provided, however,* that the Board may, in its sole discretion, cause some or all Stock Awards to become fully vested, exercisable and/or no longer subject to repurchase or forfeiture (to the extent such Stock Awards have not previously expired or terminated) before the dissolution or liquidation is completed but contingent on its completion.

(c) Corporate Transaction. The following provisions will apply to Stock Awards in the event of a Corporate Transaction unless otherwise provided in the instrument evidencing the Stock Award or any other written agreement between the Company or any Affiliate and the Participant or unless otherwise expressly provided by the Board at the time of grant of a Stock Award. In the event of a

Corporate Transaction, then, notwithstanding any other provision of the Plan, the Board will take one or more of the following actions with respect to Stock Awards, contingent upon the closing or completion of the Corporate Transaction:

(i) arrange for the surviving corporation or acquiring corporation (or the surviving or acquiring corporation's parent company) to assume or continue the Stock Award or to substitute a similar stock award for the Stock Award (including, but not limited to, an award to acquire the same consideration paid to the stockholders of the Company pursuant to the Corporate Transaction);

(ii) arrange for the assignment of any reacquisition or repurchase rights held by the Company in respect of Common Stock issued pursuant to the Stock Award to the surviving corporation or acquiring corporation (or the surviving or acquiring corporation's parent company);

(iii) accelerate the vesting, in whole or in part, of the Stock Award (and, if applicable, the time at which the Stock Award may be exercised) to a date prior to the effective time of such Corporate Transaction as the Board will determine (or, if the Board will not determine such a date, to the date that is 5 days prior to the effective date of the Corporate Transaction), with such Stock Award terminating if not exercised (if applicable) at or prior to the effective time of the Corporate Transaction;

(iv) arrange for the lapse, in whole or in part, of any reacquisition or repurchase rights held by the Company with respect to the Stock Award;

(v) cancel or arrange for the cancellation of the Stock Award, to the extent not vested or not exercised prior to the effective time of the Corporate Transaction, in exchange for such cash consideration, if any, as the Board, in its sole discretion, may consider appropriate; and

(vi) cancel or arrange for the cancellation of the Stock Award, to the extent not vested or not exercised prior to the effective time of the Corporate Transaction, in exchange for a payment, in such form as may be determined by the Board equal to the excess, if any, of (A) the value of the property the Participant would have received upon the exercise of the Stock Award immediately prior to the effective time of the Corporate Transaction, over (B) any exercise price payable by such holder in connection with such exercise.

The Board need not take the same action or actions with respect to all Stock Awards or portions thereof or with respect to all Participants. The Board may take different actions with respect to the vested and unvested portions of a Stock Award.

In the absence of any affirmative determination by the Board at the time of a Corporate Transaction, each outstanding Stock Award will be assumed or an equivalent Stock Award will be substituted by such successor corporation or a parent or subsidiary of such successor corporation (the "***Successor Corporation***"), unless the Successor Corporation does not agree to assume the Stock Award or to substitute an equivalent Stock Award, in which case such Stock Award will terminate upon the consummation of the transaction.

(d) Change in Control. A Stock Award may be subject to additional acceleration of vesting and exercisability upon or after a Change in Control as may be provided in the Stock Award Agreement for such Stock Award or as may be provided in any other written agreement between the Company or any Affiliate and the Participant, but in the absence of such provision, no such acceleration will occur.

10. TERMINATION OR SUSPENSION OF THE PLAN.

The Board may suspend or terminate the Plan at any time. No Awards may be granted after the tenth (10th) anniversary of the earlier of (i) the date the Plan is adopted by the Board (the "***Effective Date***"), or (ii) the date the Plan is approved by the stockholders of the Company. No Awards may be granted under the Plan while the Plan is suspended or after it is terminated.

11. EFFECTIVE DATE OF PLAN; TIMING OF FIRST GRANT OR EXERCISE.

The Plan came into existence on the Effective Date. No Stock Award may be exercised (or, in the case of a Restricted Stock Award, Restricted Stock Unit Award, Performance Stock Award, or Other Stock Award, may be granted) and no Performance Cash Award may be settled unless and until the Plan has been approved by the stockholders of the Company, which approval will be within 12 months after the Effective Date.

12. CHOICE OF LAW.

The laws of the State of Delaware will govern all questions concerning the construction, validity and interpretation of this Plan, without regard to that state's conflict of laws rules.

13. DEFINITIONS. As used in the Plan, the following definitions will apply to the capitalized terms indicated below:

(a) "***Affiliate***" means, at the time of determination, any "parent" or "subsidiary" of the Company, as such terms are defined in Rule 405 of the Securities Act. The Board will have the authority to determine the time or times at which "parent" or "subsidiary" status is determined within the foregoing definition.

(b) "***Award***" means a Stock Award or a Performance Cash Award.

(c) "***Award Agreement***" means a written agreement between the Company and a Participant evidencing the terms and conditions of an Award.

(d) "***Board***" means the Board of Directors of the Company.

(e) "***Capitalization Adjustment***" means any change that is made in, or other events that occur with respect to, the Common Stock subject to the Plan or subject to any Stock Award after the Adoption Date without the receipt of consideration by the Company through merger, consolidation, reorganization, recapitalization, reincorporation, stock dividend, dividend in property other than cash, large nonrecurring cash dividend, stock split, liquidating dividend, combination of shares, exchange of shares, change in corporate structure or other similar equity restructuring transaction, as that term is used in Financial Accounting Standards Board Accounting Standards Codification Topic 718 (or any successor thereto). Notwithstanding the foregoing, the conversion of any convertible securities of the Company will not be treated as a Capitalization Adjustment.

(f) "***Cause***" will have the meaning ascribed to such term in any written agreement between the Participant and the Company or any Affiliate defining such term and, in the absence of such agreement, such term means, with respect to a Participant, the occurrence of any of the following events: (i) Participant's willful failure substantially to perform his or her duties and responsibilities to the Company or any Affiliate or deliberate violation of a policy of the Company or any Affiliate; (ii) Participant's commission of any act of fraud, embezzlement, dishonesty or any other willful

misconduct that has caused or is reasonably expected to result in material injury to the Company or any Affiliate; (iii) unauthorized use or disclosure by Participant of any proprietary information or trade secrets of the Company or any other party to whom the Participant owes an obligation of nondisclosure as a result of his or her relationship with the Company or any Affiliate; or (iv) Participant's willful breach of any of his or her obligations under any written agreement or covenant with the Company or any Affiliate. The determination as to whether a Participant is being terminated for Cause will be made in good faith by the Company and will be final and binding on the Participant. Any determination by the Company that the Continuous Service of a Participant was terminated with or without Cause for the purposes of outstanding Awards held by such Participant will have no effect upon any determination of the rights or obligations of the Company, any Affiliate or such Participant for any other purpose.

(g) "***Change in Control***" means the occurrence, in a single transaction or in a series of related transactions, of any one or more of the following events:

(i) any Exchange Act Person becomes the Owner, directly or indirectly, of securities of the Company representing more than 50% of the combined voting power of the Company's then outstanding securities other than by virtue of a merger, consolidation or similar transaction. Notwithstanding the foregoing, a Change in Control will not be deemed to occur (A) on account of the acquisition of securities of the Company directly from the Company, (B) on account of the acquisition of securities of the Company by an investor, any affiliate thereof or any other Exchange Act Person that acquires the Company's securities in a transaction or series of related transactions the primary purpose of which is to obtain financing for the Company through the issuance of equity securities or (C) solely because the level of Ownership held by any Exchange Act Person (the "***Subject Person***") exceeds the designated percentage threshold of the outstanding voting securities as a result of a repurchase or other acquisition of voting securities by the Company reducing the number of shares outstanding, provided that if a Change in Control would occur (but for the operation of this sentence) as a result of the acquisition of voting securities by the Company, and after such share acquisition, the Subject Person becomes the Owner of any additional voting securities that, assuming the repurchase or other acquisition had not occurred, increases the percentage of the then outstanding voting securities Owned by the Subject Person over the designated percentage threshold, then a Change in Control will be deemed to occur;

(ii) there is consummated a merger, consolidation or similar transaction involving (directly or indirectly) the Company and, immediately after the consummation of such merger, consolidation or similar transaction, the stockholders of the Company immediately prior thereto do not Own, directly or indirectly, either (A) outstanding voting securities representing more than 50% of the combined outstanding voting power of the surviving Entity in such merger, consolidation or similar transaction or (B) more than 50% of the combined outstanding voting power of the parent of the surviving Entity in such merger, consolidation or similar transaction, in each case in substantially the same proportions as their Ownership of the outstanding voting securities of the Company immediately prior to such transaction;

(iii) there is consummated a sale, lease, exclusive license or other disposition of all or substantially all of the consolidated assets of the Company and its Subsidiaries, other than a sale, lease, license or other disposition of all or substantially all of the consolidated assets of the Company and its Subsidiaries to an Entity, more than 50% of the combined voting power of the voting securities of which are Owned by stockholders of the Company in substantially the same proportions as their Ownership of the outstanding voting securities of the Company immediately prior to such sale, lease, license or other disposition; or

(iv) individuals who, on the Effective Date, are members of the Board (the "***Incumbent Board***") cease for any reason to constitute at least a majority of the members of the Board;

provided, however, that if the appointment or election (or nomination for election) of any new Board member was approved or recommended by a majority vote of the members of the Incumbent Board then still in office, such new member will, for purposes of this Plan, be considered as a member of the Incumbent Board.

Notwithstanding the foregoing definition or any other provision of this Plan, (A) the term Change in Control will not include a sale of assets, merger or other transaction effected exclusively for the purpose of changing the domicile of the Company, and (B) the definition of Change in Control (or any analogous term) in an individual written agreement between the Company or any Affiliate and the Participant will supersede the foregoing definition with respect to Awards subject to such agreement; *provided, however,* that if no definition of Change in Control or any analogous term is set forth in such an individual written agreement, the foregoing definition will apply.

If required for compliance with Section 409A of the Code, in no event will a Change in Control be deemed to have occurred if such transaction is not also a "change in the ownership or effective control of" the Company or "a change in the ownership of a substantial portion of the assets of" the Company as determined under U.S. Treasury Regulation Section 1.409A-3(i)(5) (without regard to any alternative definition thereunder). The Board may, in its sole discretion and without a Participant's consent, amend the definition of "Change in Control" to conform to the definition of "Change in Control" under Section 409A of the Code, and the regulations thereunder.

(h) "***Code***" means the U.S. Internal Revenue Code of 1986, as amended, including any applicable regulations and guidance thereunder.

(i) "***Committee***" means a committee of one (1) or more Directors to whom authority has been delegated by the Board in accordance with Section 2(c).

(j) "***Common Stock***" means the common stock of the Company.

(k) "***Company***" means Atara Biotherapeutics, Inc., a Delaware corporation.

(l) "***Consultant***" means any person, including an advisor, who is (i) engaged by the Company or an Affiliate to render consulting or advisory services and is compensated for such services, or (ii) serving as a member of the board of directors of an Affiliate and is compensated for such services. However, service solely as a Director, or payment of a fee for such service, will not cause a Director to be considered a "Consultant" for purposes of the Plan. Notwithstanding the foregoing, a person is treated as a Consultant under this Plan only if a Form S-8 Registration Statement under the Securities Act is available to register either the offer or the sale of the Company's securities to such person.

(m) "***Continuous Service***" means that the Participant's service with the Company or an Affiliate, whether as an Employee, Director or Consultant, is not interrupted or terminated. A change in the capacity in which the Participant renders service to the Company or an Affiliate as an Employee, Consultant or Director or a change in the Entity for which the Participant renders such service, provided that there is no interruption or termination of the Participant's service with the Company or an Affiliate, will not terminate a Participant's Continuous Service. For example, a change in status from an Employee of the Company to a Consultant of an Affiliate or to a Director will not constitute an interruption of Continuous Service. If the Entity for which a Participant is rendering services ceases to qualify as an Affiliate, as determined by the Board in its sole discretion, such Participant's Continuous Service will be considered to have terminated on the date such Entity ceases to qualify as an Affiliate. To the extent permitted by law, the Board or the chief executive officer of the Company, in that party's sole discretion, may determine whether Continuous Service will be considered interrupted in the case of (i) any leave of

absence approved by the Board or chief executive officer, including sick leave, military leave or any other personal leave, or (ii) transfers between the Company, an Affiliate, or their successors. In addition, if required for exemption from or compliance with Section 409A of the Code, the determination of whether there has been a termination of Continuous Service will be made, and such term will be construed, in a manner that is consistent with the definition of "separation from service" as defined under U.S. Treasury Regulation Section 1.409A-1(h) (without regard to any alternative definition thereunder). A leave of absence will be treated as Continuous Service for purposes of vesting in a Stock Award only to such extent as may be provided in the Company's leave of absence policy, in the written terms of any leave of absence agreement or policy applicable to the Participant, or as otherwise required by law.

(n) "***Corporate Transaction***" means the consummation, in a single transaction or in a series of related transactions, of any one or more of the following events:

(i) a sale or other disposition of all or substantially all, as determined by the Board in its sole discretion, of the consolidated assets of the Company and its Subsidiaries;

(ii) a sale or other disposition of at least 90% of the outstanding securities of the Company;

(iii) a merger, consolidation or similar transaction following which the Company is not the surviving corporation; or

(iv) a merger, consolidation or similar transaction following which the Company is the surviving corporation but the shares of Common Stock outstanding immediately preceding the merger, consolidation or similar transaction are converted or exchanged by virtue of the merger, consolidation or similar transaction into other property, whether in the form of securities, cash or otherwise.

To the extent required for compliance with Section 409A of the Code, in no event will an event be deemed a Corporate Transaction if such transaction is not also a "change in the ownership or effective control of" the Company or "a change in the ownership of a substantial portion of the assets of" the Company as determined under U.S. Treasury Regulation Section 1.409A-3(i)(5) (without regard to any alternative definition thereunder).

(o) "***Covered Employee***" will have the meaning provided in Section 162(m)(3) of the Code.

(p) "***Director***" means a member of the Board.

(q) "***Disability***" means, with respect to a Participant, the inability of such Participant to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment that can be expected to result in death or that has lasted or can be expected to last for a continuous period of not less than 12 months as provided in Sections 22(e)(3) and 409A(a)(2)(C)(i) of the Code, and will be determined by the Board on the basis of such medical evidence as the Board deems warranted under the circumstances.

(r) "***Effective Date***" is defined in Section 10 of the Plan.

(s) "***Employee***" means any person providing services as an employee of the Company or an Affiliate. However, service solely as a Director, or payment of a fee for such services, will not cause a Director to be considered an "Employee" for purposes of the Plan.

(t) "***Entity***" means a corporation, partnership, limited liability company or other entity.

(u) "***Exchange Act***" means the U.S. Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

(v) "***Exchange Act Person***" means any natural person, Entity or "group" (within the meaning of Section 13(d) or 14(d) of the Exchange Act), except that "Exchange Act Person" will not include (i) the Company or any Subsidiary of the Company, (ii) any employee benefit plan of the Company or any Subsidiary of the Company or any trustee or other fiduciary holding securities under an employee benefit plan of the Company or any Subsidiary of the Company, (iii) an underwriter temporarily holding securities pursuant to a registered public offering of such securities, (iv) an Entity Owned, directly or indirectly, by the stockholders of the Company in substantially the same proportions as their Ownership of stock of the Company, or (v) any natural person, Entity or "group" (within the meaning of Section 13(d) or 14(d) of the Exchange Act) that, as of the Effective Date, is the Owner, directly or indirectly, of securities of the Company representing more than 50% of the combined voting power of the Company's then outstanding securities.

(w) "***Fair Market Value***" means, as of any date, the value of the Common Stock determined as follows:

(i) If the Common Stock is listed on any established stock exchange or traded on any established market, the Fair Market Value of a share of Common Stock will be, unless otherwise determined by the Board, the closing sales price for such stock as quoted on such exchange or market (or the exchange or market with the greatest volume of trading in the Common Stock) on the date of determination, as reported in a source the Board deems reliable.

(ii) Unless otherwise provided by the Board, if there is no closing sales price for the Common Stock on the date of determination, then the Fair Market Value will be the closing selling price on the last preceding date for which such quotation exists.

(iii) In the absence of such markets for the Common Stock, the Fair Market Value will be determined by the Board in good faith and in a manner that complies with Sections 409A and 422 of the Code.

(x) "***Incentive Stock Option***" means an option granted pursuant to Section 5 of the Plan that is intended to be, and that qualifies as, an "incentive stock option" within the meaning of Section 422 of the Code.

(y) "***IPO Date***" means the date of the underwriting agreement between the Company and the underwriters(s) managing the initial public offering of the Common Stock, pursuant to which the Common Stock is priced for the initial public offering (the "***IPO***").

(z) "***Non-Employee Director***" means a Director who either (i) is not a current employee or officer of the Company or an Affiliate, does not receive compensation, either directly or indirectly, from the Company or an Affiliate for services rendered as a consultant or in any capacity other than as a Director (except for an amount as to which disclosure would not be required under Item 404(a) of Regulation S-K promulgated pursuant to the Securities Act ("***Regulation S-K***")), does not possess an interest in any other transaction for which disclosure would be required under Item 404(a) of Regulation S-K, and is not engaged in a business relationship for which disclosure would be required pursuant to Item 404(b) of Regulation S-K; or (ii) is otherwise considered a "non-employee director" for purposes of Rule 16b-3 of the Exchange Act.

(aa) "***Nonstatutory Stock Option***" means any option granted pursuant to Section 5 of the Plan that does not qualify as an Incentive Stock Option.

(bb) "***Officer***" means a person who is an officer of the Company within the meaning of Section 16 of the Exchange Act.

(cc) "***Option***" means an Incentive Stock Option or a Nonstatutory Stock Option to purchase shares of Common Stock granted pursuant to the Plan.

(dd) "***Option Agreement***" means a written agreement between the Company and an Optionholder evidencing the terms and conditions of an Option grant. Each Option Agreement will be subject to the terms and conditions of the Plan.

(ee) "***Optionholder***" means a person to whom an Option is granted pursuant to the Plan or, if applicable, such other person who holds an outstanding Option.

(ff) "***Other Stock Award***" means an award based in whole or in part by reference to the Common Stock which is granted pursuant to the terms and conditions of Section 6(d).

(gg) "***Other Stock Award Agreement***" means a written agreement between the Company and a holder of an Other Stock Award evidencing the terms and conditions of an Other Stock Award grant. Each Other Stock Award Agreement will be subject to the terms and conditions of the Plan.

(hh) "***Outside Director***" means a Director who either (i) is not a current employee of the Company or an "affiliated corporation" (within the meaning of U.S. Treasury Regulations promulgated under Section 162(m) of the Code), is not a former employee of the Company or an "affiliated corporation" who receives compensation for prior services (other than benefits under a tax-qualified retirement plan) during the taxable year, has not been an officer of the Company or an "affiliated corporation," and does not receive remuneration from the Company or an "affiliated corporation," either directly or indirectly, in any capacity other than as a Director, or (ii) is otherwise considered an "outside director" for purposes of Section 162(m) of the Code

(ii) "***Own***," "***Owned***," "***Owner***," "***Ownership***" means a person or Entity will be deemed to "Own," to have "Owned," to be the "Owner" of, or to have acquired "Ownership" of securities if such person or Entity, directly or indirectly, through any contract, arrangement, understanding, relationship or otherwise, has or shares voting power, which includes the power to vote or to direct the voting, with respect to such securities.

(jj) "***Participant***" means a person to whom an Award is granted pursuant to the Plan or, if applicable, such other person who holds an outstanding Stock Award.

(kk) "***Performance Cash Award***" means an award of cash granted pursuant to the terms and conditions of Section 6(c)(ii).

(ll) "***Performance Criteria***" means the one or more criteria that the Board will select for purposes of establishing the Performance Goals for a Performance Period. The Performance Criteria that will be used to establish such Performance Goals may be based on any one of, or combination of, the following as determined by the Board: (1) profit before tax; (2) billings; (3) revenue; (4) net revenue; (5) earnings (which may include earnings before interest and taxes, earnings before taxes, and net earnings); (6) operating income; (7) operating margin; (8) operating profit; (9) controllable operating profit, or net operating profit; (10) net profit; (11) gross margin; (12) operating expenses or operating

expenses as a percentage of revenue; (13) net income; (14) earnings per share; (15) total stockholder return; (16) market share; (17) return on assets or net assets; (18) the Company's stock price; (19) growth in stockholder value relative to a pre-determined index; (20) return on equity; (21) return on invested capital; (22) cash flow (including free cash flow or operating cash flows); (23) cash conversion cycle; (24) economic value added; (25) individual confidential business objectives; (26) contract awards or backlog; (27) overhead or other expense reduction; (28) credit rating; (29) strategic plan development and implementation; (30) succession plan development and implementation; (31) improvement in workforce diversity; (32) customer indicators; (33) new product invention or innovation; (34) attainment of research and development milestones; (35) improvements in productivity; (36) bookings; (37) initiation of phases of clinical trials and/or studies by specified dates; (38) regulatory body approval with respect to products, studies and/or trials; (39) patient enrollment dates; (40) commercial launch of products; and (41) to the extent that an Award is not intended to comply with Section 162(m) of the Code, other measures of performance selected by the Board.

(mm) "***Performance Goals***" means, for a Performance Period, the one or more goals established by the Board for the Performance Period based upon the Performance Criteria. Performance Goals may be based on a Company-wide basis, with respect to one or more business units, divisions, Affiliates, or business segments, and in either absolute terms or relative to the performance of one or more comparable companies or the performance of one or more relevant indices. Unless specified otherwise by the Board (i) in the Award Agreement at the time the Award is granted or (ii) in such other document setting forth the Performance Goals at the time the Performance Goals are established, the Board will appropriately make adjustments in the method of calculating the attainment of Performance Goals for a Performance Period as follows: (1) to exclude restructuring and/or other nonrecurring charges; (2) to exclude exchange rate effects; (3) to exclude the effects of changes to generally accepted accounting principles; (4) to exclude the effects of any statutory adjustments to corporate tax rates; (5) to exclude the effects of any "extraordinary items" as determined under generally accepted accounting principles; (6) to exclude the dilutive effects of acquisitions or joint ventures; (7) to assume that any business divested by the Company achieved performance objectives at targeted levels during the balance of a Performance Period following such divestiture; (8) to exclude the effect of any change in the outstanding shares of common stock of the Company by reason of any stock dividend or split, stock repurchase, reorganization, recapitalization, merger, consolidation, spin-off, combination or exchange of shares or other similar corporate change, or any distributions to common stockholders other than regular cash dividends; (9) to exclude the effects of stock based compensation and the award of bonuses under the Company's bonus plans; (10) to exclude costs incurred in connection with potential acquisitions or divestitures that are required to expensed under generally accepted accounting principles; (11) to exclude the goodwill and intangible asset impairment charges that are required to be recorded under generally accepted accounting principles; (12) to exclude the effect of any other unusual, non-recurring gain or loss or other extraordinary item; (13) to exclude the effects of the timing of acceptance for review and/or approval of submissions to the Food and Drug Administration or any other regulatory body; and (14) to exclude the effects of entering into or achieving milestones involved in licensing joint ventures. In addition, the Board retains the discretion to reduce or eliminate the compensation or economic benefit due upon attainment of Performance Goals and to define the manner of calculating the Performance Criteria it selects to use for such Performance Period. Partial achievement of the specified criteria may result in the payment or vesting corresponding to the degree of achievement as specified in the Stock Award Agreement or the written terms of a Performance Cash Award.

(nn) "***Performance Period***" means the period of time selected by the Board over which the attainment of one or more Performance Goals will be measured for the purpose of determining a Participant's right to and the payment of a Stock Award or a Performance Cash Award. Performance Periods may be of varying and overlapping duration, at the sole discretion of the Board.

(oo) "***Performance Stock Award***" means a Stock Award granted under the terms and conditions of Section 6(c)(i).

(pp) "***Plan***" means this Atara Biotherapeutics, Inc. 2014 Equity Incentive Plan.

(qq) "***Restricted Stock Award***" means an award of shares of Common Stock which is granted pursuant to the terms and conditions of Section 6(a).

(rr) "***Restricted Stock Award Agreement***" means a written agreement between the Company and a holder of a Restricted Stock Award evidencing the terms and conditions of a Restricted Stock Award grant. Each Restricted Stock Award Agreement will be subject to the terms and conditions of the Plan.

(ss) "***Restricted Stock Unit Award***" means a right to receive shares of Common Stock which is granted pursuant to the terms and conditions of Section 6(b).

(tt) "***Restricted Stock Unit Award Agreement***" means a written agreement between the Company and a holder of a Restricted Stock Unit Award evidencing the terms and conditions of a Restricted Stock Unit Award grant. Each Restricted Stock Unit Award Agreement will be subject to the terms and conditions of the Plan.

(uu) "***Securities Act***" means the U.S. Securities Act of 1933, as amended.

(vv) "***Stock Appreciation Right***" or "***SAR***" means a right to receive the appreciation on Common Stock that is granted pursuant to the terms and conditions of Section 5.

(ww) "***Stock Appreciation Right Agreement***" means a written agreement between the Company and a holder of a Stock Appreciation Right evidencing the terms and conditions of a Stock Appreciation Right grant. Each Stock Appreciation Right Agreement will be subject to the terms and conditions of the Plan.

(xx) "***Stock Award***" means any right to receive Common Stock granted under the Plan, including an Incentive Stock Option, a Nonstatutory Stock Option, a Restricted Stock Award, a Restricted Stock Unit Award, a Stock Appreciation Right, a Performance Stock Award, or any Other Stock Award.

(yy) "***Stock Award Agreement***" means a written agreement between the Company and a Participant evidencing the terms and conditions of a Stock Award grant. Each Stock Award Agreement will be subject to the terms and conditions of the Plan.

(zz) "***Subsidiary***" means, with respect to the Company, (i) any corporation of which more than 50% of the outstanding capital stock having ordinary voting power to elect a majority of the board of directors of such corporation (irrespective of whether, at the time, stock of any other class or classes of such corporation will have or might have voting power by reason of the happening of any contingency) is at the time, directly or indirectly, Owned by the Company, and (ii) any partnership, limited liability company or other entity in which the Company has a direct or indirect interest (whether in the form of voting or participation in profits or capital contribution) of more than 50%.

(aaa) "***Ten Percent Stockholder***" means a person who Owns (or is deemed to Own pursuant to Section 424(d) of the Code) stock possessing more than 10% of the total combined voting power of all classes of stock of the Company or any Affiliate

Exhibit 10.2

ATARA BIOTHERAPEUTICS, INC.
STOCK OPTION GRANT NOTICE
(2014 EQUITY INCENTIVE PLAN)

Atara Biotherapeutics, Inc. (the "***Company***"), pursuant to its 2014 Equity Incentive Plan (the "***Plan***"), hereby grants to Optionholder an option to purchase the number of shares of the Company's Common Stock set forth below. This option is subject to all of the terms and conditions as set forth in this notice, in the Option Agreement, the Plan and the Notice of Exercise, all of which are attached hereto and incorporated herein in their entirety. Capitalized terms not explicitly defined herein but defined in the Plan or the Option Agreement will have the same definitions as in the Plan or the Option Agreement. If there is any conflict between the terms in this notice and the Plan, the terms of the Plan will control.

Optionholder:	_____
Date of Grant:	_____
Vesting Commencement Date:	_____
Number of Shares Subject to Option:	_____
Exercise Price (Per Share):	_____
Total Exercise Price:	_____
Expiration Date:	_____

Type of Grant: ☐ Incentive Stock Option[1] ☐ Nonstatutory Stock Option

Exercise Schedule: ☐ Same as Vesting Schedule ☐ Early Exercise Permitted

Vesting Schedule:

Payment: By one or a combination of the following items (described in the Option Agreement):

☐ By cash, check, bank draft or money order payable to the Company
☐ Pursuant to a Regulation T Program if the shares are publicly traded
☐ By delivery of already-owned shares if the shares are publicly traded

Additional Terms/Acknowledgements: Optionholder acknowledges receipt of, and understands and agrees to, this Stock Option Grant Notice, the Option Agreement and the Plan. Optionholder acknowledges and agrees that this Stock Option Grant Notice and the Option Agreement may not be modified, amended or revised except as provided in the Plan. Optionholder further acknowledges that as of the Date of Grant, this Stock Option Grant Notice, the Option Agreement, and the Plan set forth the entire understanding between Optionholder and the Company regarding this option award and supersede all prior oral and written agreements, promises and/or representations on that subject with the exception of (i) options previously granted and delivered to Optionholder, (ii) any compensation recovery policy that is adopted by the Company or is otherwise required by applicable law and (iii) any written employment or severance arrangement that would provide for vesting acceleration of this option upon the terms and conditions set forth therein.

[1] If this is an Incentive Stock Option, it (plus other outstanding Incentive Stock Options) cannot be first *exercisable* for more than $100,000 in value (measured by exercise price) in any calendar year. Any excess over $100,000 is a Nonstatutory Stock Option.

By accepting this option, Optionholder consents to receive such documents by electronic delivery and to participate in the Plan through an online or electronic system established and maintained by the Company or another third party designated by the Company.

ATARA BIOTHERAPEUTICS, INC.	**OPTIONHOLDER:**
By: _____	_____
Signature	Signature
Title: _____	Date: _____
Date: _____	

ATTACHMENTS: Option Agreement, 2014 Equity Incentive Plan and Notice of Exercise

ATTACHMENT I

OPTION AGREEMENT

ATARA BIOTHERAPEUTICS, INC.
2014 EQUITY INCENTIVE PLAN

OPTION AGREEMENT
(INCENTIVE STOCK OPTION OR NONSTATUTORY STOCK OPTION)

Pursuant to your Stock Option Grant Notice ("***Grant Notice***") and this Option Agreement, Atara Biotherapeutics, Inc. (the "***Company***") has granted you an option under its 2014 Equity Incentive Plan (the "***Plan***") to purchase the number of shares of the Company's Common Stock indicated in your Grant Notice at the exercise price indicated in your Grant Notice. The option is granted to you effective as of the date of grant set forth in the Grant Notice (the "***Date of Grant***"). If there is any conflict between the terms in this Option Agreement and the Plan, the terms of the Plan will control. Capitalized terms not explicitly defined in this Option Agreement or in the Grant Notice but defined in the Plan will have the same definitions as in the Plan.

The details of your option, in addition to those set forth in the Grant Notice and the Plan, are as follows:

1. VESTING. Subject to the provisions contained herein, your option will vest as provided in your Grant Notice. Vesting will cease upon the termination of your Continuous Service.

2. NUMBER OF SHARES AND EXERCISE PRICE. The number of shares of Common Stock subject to your option and your exercise price per share in your Grant Notice will be adjusted for Capitalization Adjustments.

3. EXERCISE RESTRICTION FOR NON-EXEMPT EMPLOYEES. If you are an Employee eligible for overtime compensation under the Fair Labor Standards Act of 1938, as amended (that is, a "***Non-Exempt Employee***"), and except as otherwise provided in the Plan, you may not exercise your option until you have completed at least six (6) months of Continuous Service measured from the Date of Grant, even if you have already been an employee for more than six (6) months. Consistent with the provisions of the Worker Economic Opportunity Act, you may exercise your option as to any vested portion prior to such six (6) month anniversary in the case of (i) your death or disability, (ii) a Corporate Transaction in which your option is not assumed, continued or substituted, (iii) a Change in Control or (iv) your termination of Continuous Service on your "retirement" (as defined in the Company's benefit plans).

4. EXERCISE PRIOR TO VESTING ("EARLY EXERCISE"). If permitted in your Grant Notice (*i.e.*, the "Exercise Schedule" indicates "Early Exercise Permitted") and subject to the provisions of your option, you may elect at any time that is both (i) during the period of your Continuous Service and (ii) during the term of your option, to exercise all or part of your option, including the unvested portion of your option; *provided, however,* that:

(a) a partial exercise of your option will be deemed to cover first vested shares of Common Stock and then the earliest vesting installment of unvested shares of Common Stock;

(b) any shares of Common Stock so purchased from installments that have not vested as of the date of exercise will be subject to the purchase option in favor of the Company as described in the Company's form of Early Exercise Stock Purchase Agreement;

(c) you will enter into the Company's form of Early Exercise Stock Purchase Agreement with a vesting schedule that will result in the same vesting as if no early exercise had occurred; and

(d) if your option is an Incentive Stock Option, then, to the extent that the aggregate Fair Market Value (determined at the Date of Grant) of the shares of Common Stock with respect to which your option plus all other Incentive Stock Options you hold are exercisable for the first time by you during any calendar year (under all plans of the Company and its Affiliates) exceeds one hundred thousand dollars ($100,000), your option(s) or portions thereof that exceed such limit (according to the order in which they were granted) will be treated as Nonstatutory Stock Options.

5. METHOD OF PAYMENT. You must pay the full amount of the exercise price for the shares you wish to exercise. You may pay the exercise price in cash or by check, bank draft or money order payable to the Company or in any other manner ***permitted by your Grant Notice*****,** which may include one or more of the following:

(a) Provided that at the time of exercise the Common Stock is publicly traded, pursuant to a program developed under Regulation T as promulgated by the Federal Reserve Board that, prior to the issuance of Common Stock, results in either the receipt of cash (or check) by the Company or the receipt of irrevocable instructions to pay the aggregate exercise price to the Company from the sales proceeds. This manner of payment is also known as a "broker-assisted exercise", "same day sale", or "sell to cover".

(b) Provided that at the time of exercise the Common Stock is publicly traded, by delivery to the Company (either by actual delivery or attestation) of already-owned shares of Common Stock that are owned free and clear of any liens, claims, encumbrances or security interests, and that are valued at Fair Market Value on the date of exercise. "Delivery" for these purposes, in the sole discretion of the Company at the time you exercise your option, will include delivery to the Company of your attestation of ownership of such shares of Common Stock in a form approved by the Company. You may not exercise your option by delivery to the Company of Common Stock if doing so would violate the provisions of any law, regulation or agreement restricting the redemption of the Company's stock.

(c) If this option is a Nonstatutory Stock Option, subject to the consent of the Company at the time of exercise, by a "net exercise" arrangement pursuant to which the Company will reduce the number of shares of Common Stock issued upon exercise of your option by the largest whole number of shares with a Fair Market Value that does not exceed the aggregate exercise price. You must pay any remaining balance of the aggregate exercise price

not satisfied by the "net exercise" in cash or other permitted form of payment. Shares of Common Stock will no longer be outstanding under your option and will not be exercisable thereafter if those shares (i) are used to pay the exercise price pursuant to the "net exercise," (ii) are delivered to you as a result of such exercise, and (iii) are withheld to satisfy your tax withholding obligations.

6. WHOLE SHARES. You may exercise your option only for whole shares of Common Stock.

7. SECURITIES LAW COMPLIANCE. In no event may you exercise your option unless the shares of Common Stock issuable upon exercise are then registered under the Securities Act or, if not registered, the Company has determined that your exercise and the issuance of the shares would be exempt from the registration requirements of the Securities Act. The exercise of your option also must comply with all other applicable laws and regulations governing your option, and you may not exercise your option if the Company determines that such exercise would not be in material compliance with such laws and regulations (including any restrictions on exercise required for compliance with Treas. Reg. 1.401(k)-1(d)(3), if applicable).

8. TERM. You may not exercise your option before the Date of Grant or after the expiration of the option's term. The term of your option expires, subject to the provisions of Section 5(h) of the Plan, upon the earliest of the following:

(a) immediately upon the termination of your Continuous Service for Cause;

(b) three (3) months after the termination of your Continuous Service for any reason other than Cause, your Disability or your death (except as otherwise provided in Section 8(d) below); *provided, however*, that if during any part of such three (3) month period your option is not exercisable solely because of the condition set forth in the section above relating to "Securities Law Compliance," your option will not expire until the earlier of the Expiration Date or until it has been exercisable for an aggregate period of three (3) months after the termination of your Continuous Service; *provided further*, if during any part of such three (3) month period, the sale of any Common Stock received upon exercise of your option would violate the Company's insider trading policy, then your option will not expire until the earlier of the Expiration Date or until it has been exercisable for an aggregate period of three (3) months after the termination of your Continuous Service during which the sale of the Common Stock received upon exercise of your option would not be in violation of the Company's insider trading policy. Notwithstanding the foregoing, if (i) you are a Non-Exempt Employee, (ii) your Continuous Service terminates within six (6) months after the Date of Grant, and (iii) you have vested in a portion of your option at the time of your termination of Continuous Service, your option will not expire until the earlier of (x) the later of (A) the date that is seven (7) months after the Date of Grant, and (B) the date that is three (3) months after the termination of your Continuous Service, and (y) the Expiration Date;

(c) twelve (12) months after the termination of your Continuous Service due to your Disability (except as otherwise provided in Section 8(d)) below;

(d) eighteen (18) months after your death if you die either during your Continuous Service or within three (3) months after your Continuous Service terminates for any reason other than Cause;

(e) the Expiration Date indicated in your Grant Notice; or

(f) the day before the tenth (10th) anniversary of the Date of Grant.

If your option is an Incentive Stock Option, note that to obtain the federal income tax advantages associated with an Incentive Stock Option, the Code requires that at all times beginning on the Date of Grant and ending on the day three (3) months before the date of your option's exercise, you must be an employee of the Company or an Affiliate, except in the event of your death or Disability. The Company has provided for extended exercisability of your option under certain circumstances for your benefit but cannot guarantee that your option will necessarily be treated as an Incentive Stock Option if you continue to provide services to the Company or an Affiliate as a Consultant or Director after your employment terminates or if you otherwise exercise your option more than three (3) months after the date your employment with the Company or an Affiliate terminates.

9. EXERCISE.

(a) You may exercise the vested portion of your option (and the unvested portion of your option if your Grant Notice so permits) during its term by (i) delivering a Notice of Exercise (in a form designated by the Company) or completing such other documents and/or procedures designated by the Company for exercise and (ii) paying the exercise price and any applicable withholding taxes to the Company's Secretary, stock plan administrator, or such other person as the Company may designate, together with such additional documents as the Company may then require.

(b) By exercising your option you agree that, as a condition to any exercise of your option, the Company may require you to enter into an arrangement providing for the payment by you to the Company of any tax withholding obligation of the Company arising by reason of (i) the exercise of your option, (ii) the lapse of any substantial risk of forfeiture to which the shares of Common Stock are subject at the time of exercise, or (iii) the disposition of shares of Common Stock acquired upon such exercise.

(c) If your option is an Incentive Stock Option, by exercising your option you agree that you will notify the Company in writing within fifteen (15) days after the date of any disposition of any of the shares of the Common Stock issued upon exercise of your option that occurs within two (2) years after the Date of Grant or within one (1) year after such shares of Common Stock are transferred upon exercise of your option.

(d) By exercising your option you agree that you will not sell, dispose of, transfer, make any short sale of, grant any option for the purchase of, or enter into any hedging or similar transaction with the same economic effect as a sale with respect to any shares of Common Stock or other securities of the Company held by you, for a period of one hundred eighty (180) days following the effective date of a registration statement of the Company filed

under the Securities Act or such longer period as the underwriters or the Company will request to facilitate compliance with FINRA Rule 2711 or NYSE Member Rule 472 or any successor or similar rules or regulation (the "***Lock-Up Period***"); *provided, however*, that nothing contained in this section will prevent the exercise of a repurchase option, if any, in favor of the Company during the Lock-Up Period. You further agree to execute and deliver such other agreements as may be reasonably requested by the Company or the underwriters that are consistent with the intent of this provision or that are necessary to give further effect to this provision. In order to enforce this covenant, the Company may impose stop-transfer instructions with respect to your shares of Common Stock until the end of such period. You also agree that any transferee of any shares of Common Stock (or other securities) of the Company held by you will be bound by this Section 9(d). The underwriters of the Company's stock are intended third party beneficiaries of this Section 9(d) and will have the right, power and authority to enforce the provisions hereof as though they were a party hereto.

10. TRANSFERABILITY. Except as otherwise provided in this Section 10, your option is not transferable, except by will or by the laws of descent and distribution, and is exercisable during your life only by you.

(a) Certain Trusts. Upon receiving written permission from the Board or its duly authorized designee, you may transfer your option to a trust if you are considered to be the sole beneficial owner (determined under Section 671 of the Code and applicable state law) while the option is held in the trust. You and the trustee must enter into transfer and other agreements required by the Company.

(b) Domestic Relations Orders. Upon receiving written permission from the Board or its duly authorized designee, and provided that you and the designated transferee enter into transfer and other agreements required by the Company, you may transfer your option pursuant to the terms of a domestic relations order, official marital settlement agreement or other divorce or separation instrument as permitted by Treasury Regulation 1.421-1(b)(2) that contains the information required by the Company to effectuate the transfer. You are encouraged to discuss the proposed terms of any division of this option with the Company prior to finalizing the domestic relations order or marital settlement agreement to help ensure the required information is contained within the domestic relations order or marital settlement agreement. If this option is an Incentive Stock Option, this option may be deemed to be a Nonstatutory Stock Option as a result of such transfer.

(c) Beneficiary Designation. Upon receiving written permission from the Board or its duly authorized designee, you may, by delivering written notice to the Company, in a form approved by the Company and any broker designated by the Company to handle option exercises, designate a third party who, on your death, will thereafter be entitled to exercise this option and receive the Common Stock or other consideration resulting from such exercise. In the absence of such a designation, your executor or administrator of your estate will be entitled to exercise this option and receive, on behalf of your estate, the Common Stock or other consideration resulting from such exercise.

11. RIGHT OF FIRST REFUSAL.

(a) If at any time you propose to transfer ("***Transfer***") shares of Common Stock that were acquired under this option, then you will promptly give the Company written notice of your intention to make the Transfer (the "***Transfer Notice***"). The Transfer Notice shall include (i) a description of the shares to be transferred (the "***Offered Shares***"), (ii) the name(s) and address(es) of the prospective transferee(s), (iii) the purchase price and form of consideration proposed to be paid for the Offered Shares and (iv) the other material terms and conditions upon which the proposed Transfer is to be made. The Transfer Notice shall certify that the Participant has received a firm offer from the prospective transferee(s) and in good faith believes a binding agreement for the Transfer is obtainable on the terms set forth in the Transfer Notice. The Transfer Notice shall also include a copy of any written proposal, term sheet or letter of intent or other agreement relating to the proposed Transfer.

(b) The Company shall have an option for a period of ten (10) days from its receipt of the Transfer Notice to elect to purchase the Offered Shares at the same price and subject to the same material terms and conditions as described in the Transfer Notice. The Company may exercise such purchase option and purchase all or any portion of the Offered Shares by notifying you in writing before expiration of such ten (10) day period as to the number of such shares that it wishes to purchase. If the Company gives you notice that it desires to purchase such shares, then payment for the Offered Shares shall be made by check or wire transfer against delivery of the Offered Shares to be purchased at a time and place agreed upon between the parties, which time shall be no later than forty-five (45) days after receipt by the Company of the Transfer Notice, unless the Transfer Notice contemplated a later closing with the prospective third party transferee(s) or unless the value of the consideration to be paid for the Offered Shares has not yet been established in accordance with the below provisions. If the Company fails to purchase any or all of the Offered Shares by exercising the option within the ten day period provided, the remaining Offered Shares shall be subject to the following paragraphs.

(c) Subject to the Company's option set forth above, if at any time you propose a Transfer, then, within five (5) days after the Company has declined to purchase all, or a portion, of the Offered Shares or the Company's option to so purchase the Offered Shares has expired, you shall give each Company stockholder (each a "***Holder***") that is designated by the Company an "Additional Transfer Notice" that shall include all of the information and certifications required in a Transfer Notice and shall additionally identify the Offered Shares that the Company has declined to purchase (the "***Remaining Shares***") and reference the Holders' rights of first refusal with respect to the proposed Transfer contained in this option.

(d) Each Holder shall have an option for a period of fifteen (15) days from its receipt of the Additional Transfer Notice to elect to purchase its respective pro rata share of the Remaining Shares at the same price and subject to the same material terms and conditions as described in the Additional Transfer Notice. Each Holder may exercise such purchase option and purchase all or any portion of its pro rata share of the Remaining Shares (a "***Participating Holder***") by notifying you and the Company in writing, before expiration of the fifteen (15)-day period as to the number of such shares that it wishes to purchase (the "***Participating Holder Notice***"). Each Holder's pro rata share of the Remaining Shares shall be a fraction of the

Remaining Shares, the numerator of which shall be the number of shares of Common Stock (including shares of Common Stock issuable upon conversion of preferred stock) owned by such Holder on the date of the Transfer Notice and denominator of which shall be the total number of outstanding shares of capital stock (including any securities convertible into shares of capital stock) held by all Holders on the date of the Transfer Notice.

(e) In the event any Holder elects not to purchase its pro rata share of the Remaining Shares available pursuant to its option above within the time period set forth therein, then you will promptly give written notice (the "***Overallotment Notice***") to each Participating Holder that has elected to purchase all of its pro rata share of the Remaining Shares (each a "***Fully Participating Holder***"), which notice shall set forth the number of Remaining Shares not purchased by the other Holders (the "***Unsubscribed Shares***"), and shall offer the Fully Participating Holders the right to acquire the Unsubscribed Shares. Each Fully Participating Holder shall have five (5) days after its receipt of the Overallotment Notice to deliver a written notice to you (the "***Participating Holders Overallotment Notice***") of its election to purchase its pro rata share of the Unsubscribed Shares on the same terms and conditions as set forth in the Additional Transfer Notice, which such Participating Holders Overallotment Notice shall also indicate the maximum number of the Unsubscribed Shares that such Fully Participating Holder will purchase in the event that any other Fully Participating Holder elects not to purchase its pro rata share of the Unsubscribed Shares. For the purposes of determining a Fully Participating Holder's pro rata share of the unsubscribed shares, the numerator shall be the same as that used in above and the denominator shall be the total number of shares of capital stock (including shares issuable upon conversion of preferred stock) owned by all Fully Participating Holders on the date of the Transfer Notice.

(f) Each Participating Holder shall be entitled to apportion Remaining Shares to be purchased among its partners and affiliates, *provided* that such Participating Holder notifies you of such allocation.

(g) The Participating Holders shall effect the purchase of the Remaining Shares with payment by check or wire transfer against delivery of the Remaining Shares to be purchased at a time and place agreed upon between the parties, which time shall be no later than sixty (60) days after receipt by the Company of the Transfer Notice, unless the Transfer Notice contemplated a later closing with the prospective third-party transferee(s) or unless the value of the consideration to be paid for the Offered Shares has not yet been established.

(h) Should the purchase price specified in the Transfer Notice or Additional Transfer Notice be payable in a form of consideration other than cash or evidences of indebtedness, the Company (and the Participating Holders) shall have the right to pay such purchase price in an amount of cash equal to the fair market value of such consideration. If you and the Company (or the Participating Holders) cannot agree on such fair market value within ten (10) days after receipt by the Company of the Transfer Notice (or receipt of the Additional Transfer Notice by the Holders), the valuation shall be made by an appraiser of recognized standing selected by you and the Company (or a majority-in-interest of the Participating Holders) or, if the parties cannot agree on an appraiser within twenty (20) days after receipt by the Company of the Transfer Notice (or the receipt of the Additional Transfer Notice by the Holders), each shall select an appraiser of recognized standing and those appraisers shall

designate a third appraiser of recognized standing, whose appraisal shall be determinative of such value. The cost of such appraisal shall be shared equally by you, on the one hand, and the Company (and, to the extent there are any, the Participating Holders, on the other hand, with that half of the cost to be borne by the Company and the Participating Holders to be apportioned on a pro rata basis based on the number of Shares each such party has expressed an interest in purchasing. If the time for the closing of the Company's purchase or the Participating Holders' purchase has expired but the determination of the value of the purchase price offered by the prospective transferee(s) has not been finalized, then such closing shall be held on or prior to the fifth business day after such valuation shall have been made pursuant to this section.

(i) If, from time to time, there is any stock dividend, stock split or other change in the character or amount of any of the outstanding Common Stock which is subject to the provisions of your option, then in such event any and all new, substituted or additional securities to which you are entitled by reason of your ownership of the shares of Common Stock acquired upon exercise of your option will be immediately subject to the provisiosn of this Section 11 with the same force and effect. The Company's right of first refusal provided in this Section 11 will expire on the first date upon which any security of the Company is listed (or approved for listing) upon notice of issuance on a national securities exchange or quotation system (the "***Listing Date***").

12. OPTION NOT A SERVICE CONTRACT. Your option is not an employment or service contract, and nothing in your option will be deemed to create in any way whatsoever any obligation on your part to continue in the employ of the Company or an Affiliate, or of the Company or an Affiliate to continue your employment. In addition, nothing in your option will obligate the Company or an Affiliate, their respective stockholders, boards of directors, officers or employees to continue any relationship that you might have as a Director or Consultant for the Company or an Affiliate.

13. WITHHOLDING OBLIGATIONS.

(a) At the time you exercise your option, in whole or in part, and at any time thereafter as requested by the Company, you hereby authorize withholding from payroll and any other amounts payable to you, and otherwise agree to make adequate provision for (including by means of a "same day sale" pursuant to a program developed under Regulation T as promulgated by the Federal Reserve Board to the extent permitted by the Company), any sums required to satisfy the federal, state, local and foreign tax withholding obligations of the Company or an Affiliate, if any, which arise in connection with the exercise of your option.

(b) If this option is a Nonstatutory Stock Option, then upon your request and subject to approval by the Company, and compliance with any applicable legal conditions or restrictions, the Company may withhold from fully vested shares of Common Stock otherwise issuable to you upon the exercise of your option a number of whole shares of Common Stock having a Fair Market Value, determined by the Company as of the date of exercise, not in excess of the minimum amount of tax required to be withheld by law (or such lower amount as may be necessary to avoid classification of your option as a liability for financial accounting purposes). If the date of determination of any tax withholding obligation is deferred to a date later than the date of exercise of your option, share withholding pursuant to the preceding sentence shall not be

permitted unless you make a proper and timely election under Section 83(b) of the Code, covering the aggregate number of shares of Common Stock acquired upon such exercise with respect to which such determination is otherwise deferred, to accelerate the determination of such tax withholding obligation to the date of exercise of your option. Notwithstanding the filing of such election, shares of Common Stock shall be withheld solely from fully vested shares of Common Stock determined as of the date of exercise of your option that are otherwise issuable to you upon such exercise. Any adverse consequences to you arising in connection with such share withholding procedure shall be your sole responsibility.

(c) You may not exercise your option unless the tax withholding obligations of the Company and/or any Affiliate are satisfied. Accordingly, you may not be able to exercise your option when desired even though your option is vested, and the Company will have no obligation to issue a certificate for such shares of Common Stock or release such shares of Common Stock from any escrow provided for herein, if applicable, unless such obligations are satisfied.

14. TAX CONSEQUENCES. You hereby agree that the Company does not have a duty to design or administer the Plan or its other compensation programs in a manner that minimizes your tax liabilities. You will not make any claim against the Company, or any of its Officers, Directors, Employees or Affiliates related to tax liabilities arising from your option or your other compensation. In particular, you acknowledge that this option is exempt from Section 409A of the Code only if the exercise price per share specified in the Grant Notice is at least equal to the "fair market value" per share of the Common Stock on the Date of Grant and there is no other impermissible deferral of compensation associated with the option.

15. NOTICES. Any notices provided for in your option or the Plan will be given in writing (including electronically) and will be deemed effectively given upon receipt or, in the case of notices delivered by mail by the Company to you, five (5) days after deposit in the United States mail, postage prepaid, addressed to you at the last address you provided to the Company. The Company may, in its sole discretion, decide to deliver any documents related to participation in the Plan and this option by electronic means or to request your consent to participate in the Plan by electronic means. By accepting this option, you consent to receive such documents by electronic delivery and to participate in the Plan through an on-line or electronic system established and maintained by the Company or another third party designated by the Company.

16. GOVERNING PLAN DOCUMENT. Your option is subject to all the provisions of the Plan, the provisions of which are hereby made a part of your option, and is further subject to all interpretations, amendments, rules and regulations, which may from time to time be promulgated and adopted pursuant to the Plan. If there is any conflict between the provisions of your option and those of the Plan, the provisions of the Plan will control. In addition, your option (and any compensation paid or shares issued under your option) is subject to recoupment in accordance with The Dodd–Frank Wall Street Reform and Consumer Protection Act and any implementing regulations thereunder, any clawback policy adopted by the Company and any compensation recovery policy otherwise required by applicable law.

17. EFFECT ON OTHER EMPLOYEE BENEFIT PLANS. The value of this option will not be included as compensation, earnings, salaries, or other similar terms used when calculating your benefits under any employee benefit plan sponsored by the Company or any Affiliate, except as such plan otherwise expressly provides. The Company expressly reserves its rights to amend, modify, or terminate any of the Company's or any Affiliate's employee benefit plans.

18. VOTING RIGHTS. You will not have voting or any other rights as a stockholder of the Company with respect to the shares to be issued pursuant to this option until such shares are issued to you. Upon such issuance, you will obtain full voting and other rights as a stockholder of the Company. Nothing contained in this option, and no action taken pursuant to its provisions, will create or be construed to create a trust of any kind or a fiduciary relationship between you and the Company or any other person.

19. SEVERABILITY. If all or any part of this Option Agreement or the Plan is declared by any court or governmental authority to be unlawful or invalid, such unlawfulness or invalidity will not invalidate any portion of this Option Agreement or the Plan not declared to be unlawful or invalid. Any Section of this Option Agreement (or part of such a Section) so declared to be unlawful or invalid shall, if possible, be construed in a manner which will give effect to the terms of such Section or part of a Section to the fullest extent possible while remaining lawful and valid.

20. MISCELLANEOUS.

(a) The rights and obligations of the Company under your option will be transferable to any one or more persons or entities, and all covenants and agreements hereunder will inure to the benefit of, and be enforceable by the Company's successors and assigns.

(b) You agree upon request to execute any further documents or instruments necessary or desirable in the sole determination of the Company to carry out the purposes or intent of your option.

(c) You acknowledge and agree that you have reviewed your option in its entirety, have had an opportunity to obtain the advice of counsel prior to executing and accepting your option, and fully understand all provisions of your option.

(d) This Option Agreement will be subject to all applicable laws, rules, and regulations, and to such approvals by any governmental agencies or national securities exchanges as may be required.

(e) All obligations of the Company under the Plan and this Option Agreement will be binding on any successor to the Company, whether the existence of such successor is the result of a direct or indirect purchase, merger, consolidation, or otherwise, of all or substantially all of the business and/or assets of the Company.

* * *

This Option Agreement will be deemed to be signed by you upon the signing by you of the Grant Notice to which it is attached.

ATTACHMENT II

2014 EQUITY INCENTIVE PLAN

ATTACHMENT III

NOTICE OF EXERCISE

NOTICE OF EXERCISE

Atara Biotherapeutics, Inc.
Attention: Stock Plan Administrator

Date of Exercise: _____

This constitutes notice to Atara Biotherapeutics, Inc. (the "***Company***") under my stock option that I elect to purchase the below number of shares of Common Stock of the Company (the "***Shares***") for the price set forth below.

Type of option (check one):	Incentive ☐	Nonstatutory ☐
Stock option dated:	_____	_____
Number of Shares as to which option is exercised:	_____	_____
Certificates to be issued in name of:	_____	_____
Total exercise price:	$_____	$_____
Cash payment delivered herewith:	$_____	$_____
Value of _____ Shares delivered herewith:	$_____	$_____
Regulation T Program (cashless exercise):	$_____	$_____

By this exercise, I agree (i) to provide such additional documents as you may require pursuant to the terms of the Atara Biotherapeutics, Inc. 2014 Equity Incentive Plan, (ii) to provide for the payment by me to you (in the manner designated by you) of your withholding obligation, if any, relating to the exercise of this option, and (iii) if this exercise relates to an Incentive Stock Option, to notify you in writing within fifteen (15) days after the date of any disposition of any of the Shares issued upon exercise of this option that occurs within two (2) years after the date of grant of this option or within one (1) year after such Shares are issued upon exercise of this option.

I hereby make the following certifications and representations with respect to the number of Shares listed above, which are being acquired by me for my own account upon exercise of the option as set forth above:

I acknowledge that the Shares have not been registered under the Securities Act of 1933, as amended (the "***Securities Act***"), and are deemed to constitute "restricted securities" under Rule 701 and Rule 144 promulgated under the Securities Act. I warrant and represent to the Company that I have no present intention of distributing or selling said Shares, except as permitted under the Securities Act and any applicable state securities laws.

I further acknowledge that I will not be able to resell the Shares for at least ninety (90) days after the stock of the Company becomes publicly traded (*i.e.,* subject to the reporting requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934) under Rule 701 and that more restrictive conditions apply to affiliates of the Company under Rule 144.

I further acknowledge that all certificates representing any of the Shares subject to the provisions of the option shall have endorsed thereon appropriate legends reflecting the foregoing limitations, as well as any legends reflecting restrictions pursuant to the Company's Articles of Incorporation, Bylaws and/or applicable securities laws.

I further agree that, if required by the Company (or a representative of the underwriters) in connection with the first underwritten registration of the offering of any securities of the Company under the Securities Act, I will not sell, dispose of, transfer, make any short sale of, grant any option for the purchase of, or enter into any hedging or similar transaction with the same economic effect as a sale with respect to any shares of Common Stock or other securities of the Company for a period of one hundred eighty (180) days following the effective date of a registration statement of the Company filed under the Securities Act (or such longer period as the underwriters or the Company shall request to facilitate compliance with FINRA Rule 2711 or NYSE Member Rule 472 or any successor or similar rule or regulation) (the "***Lock-Up Period***"). I further agree to execute and deliver such other agreements as may be reasonably requested by the Company or the underwriters that are consistent with the foregoing or that are necessary to give further effect thereto. In order to enforce the foregoing covenant, the Company may impose stop-transfer instructions with respect to securities subject to the foregoing restrictions until the end of such period.

Very truly yours,

Exhibit 10.3

ATARA BIOTHERAPEUTICS, INC.
RESTRICTED STOCK UNIT GRANT NOTICE
(2014 EQUITY INCENTIVE PLAN)

Atara Biotherapeutics, Inc. (the ***"Company"***), pursuant to its 2014 Equity Incentive Plan (the ***"Plan"***), hereby awards to Participant a Restricted Stock Unit Award for the number of shares of the Company's Common Stock set forth below (the ***"Award"***). The Award is subject to all of the terms and conditions as set forth herein and in the Plan and the Restricted Stock Unit Award Agreement, both of which are attached hereto and incorporated herein in their entirety. Capitalized terms not otherwise defined herein will have the meanings set forth in the Plan or the Restricted Stock Unit Award Agreement. In the event of any conflict between the terms in the Award and the Plan, the terms of the Plan will control.

Participant:	
Date of Grant:	
Vesting Commencement Date:	
Number of Units/Shares Subject to Award:	

Vesting Schedule: The Award vests as to [ ], subject to Participant's Continuous Service with the Company through each such vesting date.

Issuance Schedule: The shares will be issued in accordance with the issuance schedule set forth in Section 6 of the Restricted Stock Unit Award Agreement.

Additional Terms/Acknowledgements: Participant acknowledges receipt of, and understands and agrees to, this Restricted Stock Unit Grant Notice, the Restricted Stock Unit Award Agreement and the Plan. Participant further acknowledges that as of the Date of Grant, this Restricted Stock Unit Grant Notice, the Restricted Stock Unit Award Agreement and the Plan set forth the entire understanding between Participant and the Company regarding this Award and supersede all prior oral and written agreements, promises and/or representations on that subject with the exception of (i) equity awards previously granted and delivered to Participant, (ii) any compensation recovery policy that is adopted by the Company or is otherwise required by applicable law and (iii) any written employment or severance arrangement that would provide for vesting acceleration of this award upon the terms and conditions set forth therein.

By accepting the Award, Participant acknowledges having received and read the Restricted Stock Unit Grant Notice, the Restricted Stock Unit Award Agreement and the Plan (the "***Grant Documents***") and agrees to all of the terms and conditions set forth in these documents. Furthermore, by accepting the Award, Participant consents to receive such documents by electronic delivery and to participate in the Plan through an on-line or electronic system established and maintained by the Company or another third party designated by the Company.

Notwithstanding the above, if Participant has not actively accepted the Award within 90 days of the first vesting date set forth in this Restricted Stock Unit Grant Notice, Participant is deemed to have accepted the Award, subject to all of the terms and conditions of the Grant Documents.

ATARA BIOTHERAPEUTICS, INC.	**PARTICIPANT:**
By: _____	_____
Signature	Signature
Title: _____	Date: _____
Date: _____	

ATTACHMENTS: Restricted Stock Unit Award Agreement, 2014 Equity Incentive Plan

ATTACHMENT I

ATARA BIOTHERAPEUTICS, INC.
RESTRICTED STOCK UNIT AWARD AGREEMENT
(2014 EQUITY INCENTIVE PLAN)

Pursuant to the Restricted Stock Unit Grant Notice (the "***Grant Notice***") and this Restricted Stock Unit Award Agreement (the "***Agreement***") and in consideration of your services, Atara Biotherapeutics, Inc. (the "***Company***") has awarded you a Restricted Stock Unit Award (the "***Award***") under its 2014 Equity Incentive Plan (the "***Plan***"). The Award is granted to you effective as of the Date of Grant set forth in the Grant Notice for this Award. Defined terms not explicitly defined in this Agreement will have the same meanings given to them in the Plan. In the event of any conflict between the terms in this Agreement and the Plan, the terms of the Plan will control. The details of the Award, in addition to those set forth in the Grant Notice and the Plan, are as follows.

1. GRANT OF THE AWARD. The Award represents the right to be issued on a future date the number of shares of the Company's Common Stock as indicated in the Grant Notice upon the satisfaction of the terms set forth in this Agreement. Except as otherwise provided herein, you will not be required to make any payment to the Company with respect to your receipt of the Award, the vesting of the shares or the delivery of the underlying Common Stock.

2. VESTING. Subject to the limitations contained herein, the Award will vest, if at all, in accordance with the vesting schedule provided in the Grant Notice, provided that vesting will cease upon the termination of your Continuous Service. Upon such termination of your Continuous Service, the shares credited to the Account that were not vested on the date of such termination will be forfeited at no cost to the Company and you will have no further right, title or interest in or to such underlying shares of Common Stock.

3. NUMBER OF SHARES.

(a) The number of units/shares subject to the Award may be adjusted from time to time for Capitalization Adjustments, as provided in the Plan.

(b) Any shares, cash or other property that becomes subject to the Award pursuant to this Section 3 and Section 7, if any, will be subject, in a manner determined by the Board, to the same forfeiture restrictions, restrictions on transferability, and time and manner of delivery as applicable to the other shares covered by the Award.

(c) Notwithstanding the provisions of this Section 3, no fractional shares or rights for fractional shares of Common Stock will be created pursuant to this Section 3. The Board will, in its discretion, determine an equivalent benefit for any fractional shares or fractional shares that might be created by the adjustments referred to in this Section 3.

4. SECURITIES LAW AND OTHER COMPLIANCE. You may not be issued any shares under the Award unless either (a) the shares are registered under the Securities Act; or (b) the Company has determined that such issuance would be exempt from the registration requirements

of the Securities Act. The Award also must comply with other applicable laws and regulations governing the Award, and you will not receive such shares if the Company determines that such receipt would not be in material compliance with such laws and regulations.

5. TRANSFER RESTRICTIONS.

(a) General. Prior to the time that shares of Common Stock have been delivered to you, you may not transfer, pledge, sell or otherwise dispose of this Award or the shares issuable in respect of the Award, except as expressly provided in this Section 5. For example, you may not use shares that may be issued in respect of the Award as security for a loan. The restrictions on transfer set forth herein will lapse upon delivery to you of shares in respect of the vested portion of the Award.

(b) Death. The Award is transferable by will and by the laws of descent and distribution. In addition, upon receiving written permission from the Board or its duly authorized designee, you may, by delivering written notice to the Company, in a form provided by or otherwise satisfactory to the Company and any broker designated by the Company to effect transactions under the Plan, designate a third party who, in the event of your death, will thereafter be entitled to receive any distribution of Common Stock or other consideration to which you were entitled at the time of your death pursuant to this Agreement. In the absence of such a designation, your executor or administrator of your estate will be entitled to receive, on behalf of your estate, such Common Stock or other consideration.

(c) Certain Trusts. Upon receiving written permission from the Board or its duly authorized designee, you may transfer the Award to a trust if you are considered to be the sole beneficial owner (determined under Section 671 of the Code and applicable state law) while the Award is held in the trust, provided that you and the trustee enter into transfer and other agreements required by the Company.

(d) Domestic Relations Orders. Upon receiving written permission from the Board or its duly authorized designee, and provided that you and the designated transferee enter into transfer and other agreements required by the Company, you may transfer the Award or your right to receive the distribution of Common Stock or other consideration thereunder, pursuant to a domestic relations order that contains the information required by the Company to effectuate the transfer. You are encouraged to discuss the proposed terms of any division of this Award with the Company prior to finalizing the domestic relations order to help ensure the required information is contained within the domestic relations order.

6. DATE OF ISSUANCE.

(a) The Company will deliver to you a number of shares of the Company's Common Stock equal to the number of vested shares subject to the Award, including any additional shares received pursuant to Section 3 above that relate to those vested shares on the applicable vesting date(s). However, if a scheduled delivery date falls on a date that is not a business day, such delivery date will instead fall on the next following business day.

(b) Notwithstanding the foregoing, in the event that (i) you are subject to the Company's policy permitting certain individuals to sell shares only during certain "window"

periods, in effect from time to time or you are otherwise prohibited from selling shares of the Company's Common Stock in the public market and any shares covered by the Award are scheduled to be delivered on a day (the "***Original Distribution Date***") that does not occur during an open "window period" applicable to you, as determined by the Company in accordance with such policy, or does not occur on a date when you are otherwise permitted to sell shares of the Company's Common Stock on the open market, and (ii) the Company elects not to satisfy its obligations for Tax-Related Items (as defined in Section 10) by withholding shares from your distribution, then such shares will not be delivered on such Original Distribution Date and will instead be delivered on the first business day of the next occurring open "window period" applicable to you pursuant to such policy (regardless of whether you are still providing Continuous Service at such time) or the next business day when you are not prohibited from selling shares of the Company's Common Stock in the open market, but in no event later than the fifteenth (15th) day of the third calendar month of the calendar year following the calendar year in which the shares of Common Stock originally became vested. The form of such delivery (*e.g.*, a stock certificate or electronic entry evidencing such shares) will be determined by the Company. In all cases, the delivery of shares under this Award is intended to comply with Treasury Regulation Section 1.409A-1(b)(4) and will be construed and administered in such a manner.

7. DIVIDENDS. You will receive no benefit or adjustment to your Restricted Stock Units with respect to any cash dividend, stock dividend or other distribution except as provided in the Plan with respect to a Capitalization Adjustment.

8. RESTRICTIVE LEGENDS. The shares issued under the Award will be endorsed with appropriate legends as determined by the Company.

9. AWARD NOT AN EMPLOYMENT OR SERVICE CONTRACT.

(a) Your Continuous Service with the Company or an Affiliate is not for any specified term and may be terminated by you or by the Company or an Affiliate at any time, for any reason, with or without cause and with or without notice. Nothing in this Agreement (including, but not limited to, the vesting of the Award pursuant to Section 2 or the issuance of the shares subject to the Award), the Plan or any covenant of good faith and fair dealing that may be found implicit in this Agreement or the Plan will: (i) confer upon you any right to continue in the employ of, or affiliation with, the Company or an Affiliate; (ii) constitute any promise or commitment by the Company or an Affiliate regarding the fact or nature of future positions, future work assignments, future compensation or any other term or condition of employment or affiliation; (iii) confer any right or benefit under this Agreement or the Plan unless such right or

benefit has specifically accrued under the terms of this Agreement or Plan; or (iv) deprive the Company or an Affiliate of the right to terminate you at will and without regard to any future vesting opportunity that you may have.

(b) By accepting this Award, you acknowledge and agree that the right to continue vesting in the Award pursuant to Section 2 and the schedule set forth in the Grant Notice is earned only by continuing as an employee, director or consultant at the will of the Company or an Affiliate (not through the act of being hired, being granted this Award or any other award or benefit) and that the Company has the right to reorganize, sell, spin-out or otherwise restructure one or more of its businesses or Affiliates at any time or from time to time, as it deems appropriate (a "***reorganization***"). You further acknowledge and agree that such a reorganization could result in the termination of your Continuous Service, or the termination of Affiliate status of your employer and the loss of benefits available to you under this Agreement, including but not limited to, the termination of the right to continue vesting in the Award. You further acknowledge and agree that this Agreement, the Plan, the transactions contemplated hereunder and the vesting schedule set forth in the Grant Notice or any covenant of good faith and fair dealing that may be found implicit in any of them do not constitute an express or implied promise of continued engagement as an employee or consultant with the Company or an Affiliate for the term of this Agreement, for any period, or at all, and will not interfere in any way with your right or the right of the Company or an Affiliate to terminate your Continuous Service at any time, with or without cause and with or without notice.

10. RESPONSIBILITY FOR TAXES.

(a) You acknowledge that, regardless of any action taken by the Company, the ultimate liability for all income tax, social insurance, payroll tax, fringe benefits tax, payment on account or other tax-related items related to your participation in the Plan and legally applicable to you or deemed by the Company in its discretion to be an appropriate charge to you even if legally applicable to the Company ("***Tax-Related Items***") is and remains your responsibility and may exceed the amount actually withheld by the Company.

(b) Prior to any relevant taxable or tax withholding event, as applicable, you agree to make adequate arrangements satisfactory to the Company and/or the Employer to satisfy all Tax-Related Items. In this regard, you authorize the Company or its agent to satisfy their withholding obligations with regard to all Tax-Related Items, if any, by any of the following means or by a combination of such means: (i) withholding from any compensation otherwise payable to you by the Company or the Employer; (ii) causing you to tender a cash payment; (iii) entering on your behalf (pursuant to this authorization without further consent) into a "same day sale" commitment with a broker dealer that is a member of the Financial Industry Regulatory Authority (a "***FINRA Dealer***") whereby you irrevocably elect to sell a portion of the shares to be delivered under the Award to satisfy the Tax-Related Items and whereby the FINRA Dealer irrevocably commits to forward the proceeds necessary to satisfy the Tax-Related Items directly to the Company and/or its Affiliates; or (iv) withholding shares of Common Stock from the shares of Common Stock issued or otherwise issuable to you in connection with the Award with a Fair Market Value (measured as of the date shares of Common Stock are issued pursuant to Section 6) equal to the amount of such Tax-Related Items. Depending on the withholding method, the Company may withhold or account for Tax-Related Items by considering applicable

minimum statutory withholding rates or other applicable withholding rates, including maximum applicable rates, in which case you will receive a refund of any over-withheld amount in cash and will have no entitlement to the Common Stock equivalent. If the obligation for Tax-Related Items is satisfied by withholding in shares of Common Stock, for tax purposes, you are deemed to have been issued the full number of shares of Common Stock subject to the vested portion of the Award, notwithstanding that a number of the shares of Common Stock are held back solely for the purpose of paying the Tax-Related Items.

(c) Finally, you agree to pay to the Company or the Employer any amount of Tax-Related Items that the Company or the Employer may be required to withhold or account for as a result of your participation in the Plan that cannot be satisfied by the means previously described. The Company may refuse to issue or deliver the shares or the proceeds of the sale of shares of Common Stock if you fail to comply with your obligations in connection with the Tax-Related Items.

11. NO OBLIGATION TO MINIMIZE TAXES. You acknowledge that the Company is not making representations or undertakings regarding the treatment of any Tax-Related Items in connection with any aspect of the Award, including, but not limited to, the grant, vesting or settlement of the Award, the subsequent sale of shares of Common Stock acquired pursuant to such settlement and the receipt of any dividends and/or any dividend equivalent payments. Further, you acknowledge that the Company does not have any duty or obligation to minimize your liability for Tax-Related Items arising from the Award and will not be liable to you for any Tax-Related Items arising in connection with the Award.

12. NO ADVICE REGARDING GRANT. The Company is not providing any tax, legal or financial advice, nor is the Company making any recommendations regarding your participation in the Plan, or your acquisition or sale of the underlying shares of Common Stock. You are hereby advised to consult with your own personal tax, financial and/or legal advisors regarding the Tax-Related Items arising in connection with the Award and by accepting the Award, you have agreed that you have done so or knowingly and voluntarily declined to do so.

13. UNSECURED OBLIGATION. The Award is unfunded, and as a holder of a vested Award, you will be considered an unsecured creditor of the Company with respect to the Company's obligation, if any, to issue shares pursuant to this Agreement. You will not have voting or any other rights as a stockholder of the Company with respect to the shares to be issued pursuant to this Agreement until such shares are issued to you pursuant to Section 6 of this Agreement. Upon such issuance, you will obtain full voting and other rights as a stockholder of the Company. Nothing contained in this Agreement, and no action taken pursuant to its provisions, will create or be construed to create a trust of any kind or a fiduciary relationship between you and the Company or any other person.

14. OTHER DOCUMENTS. You hereby acknowledge receipt or the right to receive a document providing the information required by Rule 428(b)(1) promulgated under the Securities Act, which includes the Plan prospectus. In addition, you acknowledge receipt of the Company's policy permitting certain individuals to sell shares only during certain "window" periods and the Company's insider trading policy, in effect from time to time.

15. NOTICES. Any notices provided for in the Grant Notice, this Agreement or the Plan will be given in writing and will be deemed effectively given upon receipt or, in the case of notices delivered by the Company to you, five (5) days after deposit in the United States mail, postage prepaid, addressed to you at the last address you provided to the Company. Notwithstanding the foregoing, the Company may, in its sole discretion, decide to deliver any documents related to participation in the Plan and this Award by electronic means or to request your consent to participate in the Plan by electronic means. You hereby consent to receive such documents by electronic delivery and, if requested, to agree to participate in the Plan through an on-line or electronic system established and maintained by the Company or another third party designated by the Company.

16. MISCELLANEOUS.

(a) The rights and obligations of the Company under the Award will be transferable to any one or more persons or entities, and all covenants and agreements hereunder will inure to the benefit of, and be enforceable by the Company's successors and assigns. Your rights and obligations under the Award may only be assigned with the prior written consent of the Company.

(b) You agree upon request to execute any further documents or instruments necessary or desirable in the sole determination of the Company to carry out the purposes or intent of the Award.

(c) You acknowledge and agree that you have reviewed the documents provided to you in relation to the Award in their entirety, have had an opportunity to obtain the advice of counsel prior to executing and accepting the Award, and fully understand all provisions of such documents.

(d) This Agreement will be subject to all applicable laws, rules, and regulations, and to such approvals by any governmental agencies or national securities exchanges as may be required.

(e) All obligations of the Company under the Plan and this Agreement will be binding on any successor to the Company, whether the existence of such successor is the result of a direct or indirect purchase, merger, consolidation, or otherwise, of all or substantially all of the business and/or assets of the Company.

17. GOVERNING PLAN DOCUMENT. The Award is subject to all the provisions of the Plan, the provisions of which are hereby made a part of the Award, and is further subject to all interpretations, amendments, rules and regulations which may from time to time be promulgated and adopted pursuant to the Plan. Except as expressly provided herein, in the event of any conflict between the provisions of the Award and those of the Plan, the provisions of the Plan will control.

18. SEVERABILITY. If all or any part of this Agreement or the Plan is declared by any court or governmental authority to be unlawful or invalid, such unlawfulness or invalidity will not invalidate any portion of this Agreement or the Plan not declared to be unlawful or invalid. Any Section of this Agreement (or part of such a Section) so declared to be unlawful or invalid will, if possible, be construed in a manner which will give effect to the terms of such Section or part of a Section to the fullest extent possible while remaining lawful and valid.

19. EFFECT ON OTHER EMPLOYEE BENEFIT PLANS. The value of the Award subject to this Agreement will not be included as compensation, earnings, salaries, or other similar terms used when calculating the Employee's benefits under any employee benefit plan sponsored by the Company or any Affiliate, except as such plan otherwise expressly provides. The Company expressly reserves its rights to amend, modify, or terminate any of the Company's or any Affiliate's employee benefit plans.

20. AMENDMENT. This Agreement may not be modified, amended or terminated except by an instrument in writing, signed by you and by a duly authorized representative of the Company. Notwithstanding the foregoing, this Agreement may be amended solely by the Board by a writing which specifically states that it is amending this Agreement, so long as a copy of such amendment is delivered to you, and provided that, except as otherwise expressly provided in the Plan, no such amendment adversely affecting your rights hereunder may be made without your written consent. Without limiting the foregoing, the Board reserves the right to change, by written notice to you, the provisions of this Agreement in any way it may deem necessary or advisable to carry out the purpose of the grant as a result of any change in applicable laws or regulations or any future law, regulation, ruling, or judicial decision, provided that any such change will be applicable only to rights relating to that portion of the Award which is then subject to restrictions as provided herein.

21. COMPLIANCE WITH SECTION 409A OF THE CODE. This Award is intended to comply with the "short-term deferral" rule set forth in Treasury Regulation Section 1.409A-1(b)(4). Notwithstanding the foregoing, if it is determined that the Award fails to satisfy the requirements of the short-term deferral rule and is otherwise deferred compensation subject to Section 409A, and if you are a "Specified Employee" (within the meaning set forth Section 409A(a)(2)(B)(i) of the Code) as of the date of your separation from service (within the meaning of Treasury Regulation Section 1.409A-1(h)), then the issuance of any shares that would otherwise be made upon the date of the separation from service or within the first six months thereafter will not be made on the originally scheduled date(s) and will instead be issued in a lump sum on the date that is six months and one day after the date of the separation from service, with the balance of the shares issued thereafter in accordance with the original vesting and issuance schedule set forth above, but if and only if such delay in the issuance of the shares is necessary to avoid the imposition of taxation on you in respect of the shares under Section 409A of the Code. Each installment of shares that vests is intended to constitute a "separate payment" for purposes of Treasury Regulation Section 1.409A-2(b)(2).

* * *

This Agreement will be deemed to be signed by you upon the signing by you of the Restricted Stock Unit Grant Notice to which it is attached.

ATTACHMENT II

2014 EQUITY INCENTIVE PLAN

Exhibit 10.4

NINA BIOTHERAPEUTICS, INC.

2012 EQUITY INCENTIVE PLAN

EFFECTIVE AS OF NOVEMBER 26, 2012

NINA BIOTHERAPEUTICS, INC.
2012 EQUITY INCENTIVE PLAN

EFFECTIVE AS OF NOVEMBER 26, 2012

SECTION 1. INTRODUCTION.

The Company's Board of Directors adopted the Nina Biotherapeutics, Inc. 2012 Equity Incentive Plan effective as of the Adoption Date subject to obtaining Company stockholder approval as provided in Section 15 below. Awards granted under the Plan prior to the Stockholder Approval Date may not be exercised or Shares released to any Participant until such stockholder approval is obtained.

The purpose of the Plan is to promote the long-term success of the Company and the creation of stockholder value by offering Key Employees an opportunity to acquire a proprietary interest in the success of the Company, or to increase such interest, and to encourage such Key Employees to continue to provide services to the Company and to attract new individuals with outstanding qualifications.

The Plan seeks to achieve this purpose by providing for Awards in the form of Options (which may constitute Incentive Stock Options or Nonstatutory Stock Options), Stock Appreciation Rights, Restricted Stock Grants and/or Stock Units.

Capitalized terms shall have the meaning provided in Section 2 unless otherwise provided in this Plan or any related Stock Option Agreement, SAR Agreement, Restricted Stock Grant Agreement or Stock Unit Agreement.

SECTION 2. DEFINITIONS. If a Participant's employment agreement or Award Agreement (or other written agreement executed by and between Participant and the Company) expressly includes defined terms that expressly are different from and/or conflict with the defined terms contained in this Plan then the defined terms contained in the employment agreement or Award Agreement (or other written agreement executed by and between Participant and the Company) shall govern and shall supersede the definitions provided in this Plan.

(a) "**Adoption Date**" means November 26, 2012.

(b) "**Affiliate**" means any entity other than a Subsidiary, if the Company and/or one or more Subsidiaries own not less than 50% of such entity.

(c) "**Award**" means any award of an Option, SAR, Restricted Stock Grant or Stock Unit under the Plan.

(d) "**Board**" means the Board of Directors of the Company, as constituted from time to time.

(e) "**California Participant**" means a Participant whose Award was issued in reliance on Section 25102(o) of the California Corporations Code.

(f) "**Call Equivalent Position**" means the term "call equivalent position" as defined under Rule 16a-1(b) of the Exchange Act.

(g) "**Cashless Exercise**" means, to the extent that a Stock Option Agreement so provides and as permitted by applicable law and in accordance with any procedures established by the Committee, an arrangement whereby payment of some or all of the aggregate Exercise Price may be made all or in part by delivery of an irrevocable direction to a securities broker to sell Shares and to deliver all or part of the sale proceeds to the Company. Cashless Exercise may also be utilized to satisfy an Option's tax withholding obligations as provided in Section 14(b).

(h) "**Cause**" means, with respect to a Participant, the occurrence of any of the following: (i) a conviction of a Participant for a felony crime or the failure of a Participant to contest prosecution for a felony crime, or (ii) a Participant's misconduct, fraud, disloyalty or dishonesty (as such terms may be defined by the Committee in its sole discretion), or (iii) any unauthorized use or disclosure of confidential information or trade secrets by a Participant, or (iv) a Participant's negligence, malfeasance, breach of fiduciary duties, neglect of duties, or (v) any material violation by a Participant of a written Company or Subsidiary or Affiliate policy or any material breach by a Participant of a written agreement with the Company or Subsidiary or Affiliate, or (vi) any other act or omission by a Participant that, in the opinion of the Committee, could reasonably be expected to adversely affect the Company's or a Subsidiary's or an Affiliate's business, financial condition, prospects and/or reputation. In each of the foregoing subclauses (i) through (vi), whether or not a "Cause" event has occurred will be determined by the Committee in its sole discretion or, in the case of Participants who are directors or Officers or Section 16 Persons, the Board, each of whose determination shall be final, conclusive and binding. A Participant's Service shall be deemed to have terminated for Cause if, after the Participant's Service has terminated, facts and circumstances are discovered that would have justified a termination for Cause, including, without limitation, violation of material Company policies or breach of noncompetition, confidentiality or other restrictive covenants that may apply to the Participant.

(i) "**Change in Control**" means the occurrence of any of the following:

(i) the merger, consolidation, recapitalization, or reorganization of Company, other than a merger, consolidation, recapitalization or reorganization which would result in the voting securities of Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity) more than fifty percent (50%) of the total voting power represented by the voting securities of Company or such surviving entity outstanding immediately after such merger, consolidation, recapitalization or reorganization;

(ii) the sale or disposition by Company's stockholders of more than fifty percent (50%) of the total voting securities of Company;

(iii) a complete liquidation or dissolution of the Company;

(iv) the sale or disposition by Company of all or substantially all of its assets; or

(v) the exclusive licensing to a third party of all or substantially all of Company's intellectual property.

Notwithstanding the foregoing, the following transactions shall not constitute a Change in Control: (i) a transaction the sole purpose of which is to change the state of the Company's incorporation or to create a holding company that will be owned in substantially the same proportions by the persons who held the Company's securities immediately before such transaction; (ii) a transaction or series of related transactions involving the sale of securities by the Company primarily for financing purposes; (iii) a merger or consolidation involving only the Company and one or more companies under common management control with the Company; or (iv) an IPO. If the timing of payments provided under an Award agreement is based on or triggered by a Change in Control then, to extent necessary to avoid violating Code Section 409A, a Change in Control must also constitute a "change in control event" (as defined under Code Section 409A regulations and applicable guidance).

(j) "**Code**" means the Internal Revenue Code of 1986, as amended, and the regulations and interpretations promulgated thereunder.

(k) "**Committee**" means a committee consisting of members of the Board that is appointed by the Board (as described in Section 3) to administer the Plan. If no Committee has been appointed, the full Board shall constitute the Committee.

(l) "**Common Stock**" means the Company's common stock, par value $0.0001 per Share, and any other securities into which such shares are changed, for which such shares are exchanged or which may be issued in respect thereof.

(m) "**Company**" means Nina Biotherapeutics, Inc., a Delaware corporation.

(n) "**Consultant**" means an individual (or entity) which performs bona fide services to the Company, a Parent, a Subsidiary or an Affiliate other than as an Employee or Non-Employee Director.

(o) "**Disability**" means that the Participant is classified as disabled under a long-term disability policy of the Company or, if no such policy applies, the Participant is unable to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment which can be expected to result in death or which has lasted or can be expected to last for a continuous period of not less than 12 months. The Disability of a Key Employee shall be determined solely by the Committee on the basis of such medical evidence as the Committee deems warranted under the circumstances.

(p) "**Employee**" means any individual who is a common-law employee of the Company, or of a Parent, or of a Subsidiary or of an Affiliate.

(q) "**Exchange Act**" means the Securities Exchange Act of 1934, as amended.

(r) "**Exercise Price**" means, in the case of an Option, the amount for which a Share may be purchased upon exercise of such Option, as specified in the applicable Stock Option Agreement. "Exercise Price," in the case of a SAR, means an amount, as specified in the applicable SAR Agreement, which is subtracted from the Fair Market Value in determining the amount payable to a Participant upon exercise of such SAR.

(s) "**Fair Market Value**" means the market price of a Share, determined by the Committee as follows:

(i) If the Shares were traded on a stock exchange (such as the New York Stock Exchange, NYSE Amex, the NASDAQ Global Market or NASDAQ Capital Market) at the time of determination, then the Fair Market Value shall be equal to the regular session closing price for such stock as reported by such exchange (or the exchange or market with the greatest volume of trading in the Shares) on the date of determination, or if there were no sales on such date, on the last date preceding such date on which a closing price was reported;

(ii) If the Shares were traded on the OTC Bulletin Board at the time of determination, then the Fair Market Value shall be equal to the last-sale price reported by the OTC Bulletin Board for such date, or if there were no sales on such date, on the last date preceding such date on which a sale was reported; and

(iii) If neither of the foregoing provisions is applicable, then the Fair Market Value shall be determined by the Committee in good faith using a reasonable application of a reasonable valuation method as the Committee deems appropriate.

Whenever possible, the determination of Fair Market Value by the Committee shall be based on the prices reported by the applicable exchange or the OTC Bulletin Board, as applicable, or a nationally recognized publisher of stock prices or quotations (including an electronic on-line publication). Such determination shall be conclusive and binding on all persons.

(t) "**Incentive Stock Option**" or "**ISO**" means an incentive stock option described in Code section 422.

(u) "**IPO**" means an initial public offering by the Company of its equity securities pursuant to an effective registration statement filed with the SEC.

(v) "**Key Employee**" means an Employee, Non-Employee Director or Consultant who has been selected by the Committee to receive an Award under the Plan.

(w) "**Net Exercise**" means, to the extent that a Stock Option Agreement so provides and as permitted by applicable law, an arrangement pursuant to which the number of Shares issued to the Optionee in connection with the Optionee's exercise of the Option will be reduced by the Company's retention of a portion of such Shares. Upon such a net exercise of an Option, the Optionee will receive a net number of Shares that is equal to (i) the number of Shares as to which the Option is being exercised minus (ii) the quotient (rounded down to the nearest whole number) of the aggregate Exercise Price of the Shares being exercised divided by the Fair Market Value of a Share on the Option exercise date. The number of Shares covered by clause (ii) will be retained by the Company and not delivered to the Optionee. No fractional Shares will be created as a result of a Net Exercise and the Optionee must contemporaneously pay for any portion of the aggregate Exercise Price that is not covered by the Shares retained by the Company under clause (ii). The number of Shares delivered to the Optionee may be further reduced if Net Exercise is utilized under Section 14(b) to satisfy applicable tax withholding obligations.

(x) "**Non-Employee Director**" means a member of the Board who is not an Employee.

(y) "**Nonstatutory Stock Option**" or "**NSO**" means a stock option that is not an ISO.

(z) "**Officer**" means an individual who is an officer of the Company within the meaning of Rule 16a-1(f) of the Exchange Act.

(aa) "**Option**" means an ISO or NSO granted under the Plan entitling the Optionee to purchase Shares under the Plan as provided in Section 6.

(bb) "**Optionee**" means an individual, estate or other entity that holds an Option.

(cc) "**Parent**" means any corporation (other than the Company) in an unbroken chain of corporations ending with the Company, if each of the corporations other than the Company owns stock possessing fifty percent (50%) or more of the total combined voting power of all classes of stock in one of the other corporations in such chain. A corporation that attains the status of a Parent on a date after the Adoption Date shall be considered a Parent commencing as of such date.

(dd) "**Participant**" means an individual or estate or other entity that holds an Award.

(ee) "**Plan**" means this Nina Biotherapeutics, Inc. 2012 Equity Incentive Plan as it may be amended from time to time.

(ff) "**Put Equivalent Position**" means the term "put equivalent position" as defined under Rule 16a-1(h) of the Exchange Act.

(gg) "**Re-Price**" means that the Company has lowered or reduced the Exercise Price of outstanding Options and/or outstanding SARs for any Participant(s) in a manner described by SEC Regulation S-K Item 402(d)(2)(viii) (or as described in any successor provision(s) or definition(s)).

(hh) "**Restricted Stock Grant**" means Shares awarded under the Plan as provided in Section 9.

(ii) "**Restricted Stock Grant Agreement**" means the agreement described in Section 9 evidencing each Award of a Restricted Stock Grant.

(jj) "**SAR Agreement**" means the agreement described in Section 8 evidencing each Award of a Stock Appreciation Right.

(kk) "**SEC**" means the Securities and Exchange Commission.

(ll) "**Section 16 Persons**" means those Officers or directors or Non-Employee Directors or other persons who are subject to Section 16 of the Exchange Act.

(mm) "**Section 280G Approval**" means the separate approval by stockholders owning more than 75% of the voting power of all outstanding stock of the Company entitled to vote immediately before a Change in Control which approval shall be obtained in compliance with the requirements of Code Section 280G(b)(5)(B), as amended, including any successor thereof, and the regulations promulgated thereunder, as determined by the Committee in its sole discretion.

(nn) "**Securities Act**" means the Securities Act of 1933, as amended.

(oo) "**Separation From Service**" means a Participant's separation from service with the Company within the meaning of Code Section 409A.

(pp) "**Service**" means service as an Employee, Non-Employee Director or Consultant. Service will be deemed terminated as soon as the entity to which Service is being provided is no longer either (i) the Company, (ii) a Parent, (iii) a Subsidiary or (iv) an Affiliate. The Committee determines when Service commences and when Service terminates. The Committee may determine whether any Company transaction, such as a sale or spin-off of a division or subsidiary that employs a Participant, shall be deemed to result in termination of Service for purposes of any affected Awards, and the Committee's decision shall be final, conclusive and binding.

(qq) "**Share**" means one share of Common Stock.

(rr) "**Stock Appreciation Right or SAR**" means a stock appreciation right awarded under the Plan as provided in Section 8.

(ss) "**Stock Option Agreement**" means the agreement described in Section 6 evidencing each Award of an Option.

(tt) "**Stock Unit**" means a bookkeeping entry representing the equivalent of one Share awarded under the Plan as provided in Section 10.

(uu) "**Stock Unit Agreement**" means the agreement described in Section 10 evidencing each Award of Stock Units.

(vv) "**Stockholder Approval Date**" means the date that the Company's stockholders approve this Plan.

(ww) "**Stockholders Agreement**" means any applicable agreement between the Company's stockholders and/or investors that provides certain rights and obligations for stockholders.

(xx) "**Subsidiary**" means any corporation (other than the Company) in an unbroken chain of corporations beginning with the Company, if each of the corporations other than the last corporation in the unbroken chain owns stock possessing fifty percent (50%) or more of the total combined voting power of all classes of stock in one of the other corporations in such chain. A corporation that attains the status of a Subsidiary on a date after the Adoption Date shall be considered a Subsidiary commencing as of such date.

(yy) "**Termination Date**" means the date on which a Participant's Service terminates as determined by the Committee.

(zz) "**10-Percent Shareholder**" means an individual who owns more than ten percent (10%) of the total combined voting power of all classes of outstanding stock of the Company, its Parent or any of its Subsidiaries. In determining stock ownership, the attribution rules of section 424(d) of the Code shall be applied.

SECTION 3. ADMINISTRATION.

(a) **Committee Composition.** A Committee appointed by the Board shall administer the Plan. The Board shall designate one of the members of the Committee as chairperson. Members of the Committee shall serve for such period of time as the Board may determine and shall be subject to removal by the Board at any time. The Board may also at any time terminate the functions of the Committee and reassume all powers and authority previously delegated to the Committee.

Effective with the Shares being publicly traded or the Company being subject to the reporting requirements of the Exchange Act, with respect to Awards to Section 16 Persons, the Committee shall consist either (i) solely of two or more individuals who satisfy the requirements of Rule 16b-3 (or its successor) under the Exchange Act or (ii) of the full Board. The Board may also appoint one or more separate committees of the Board, each composed of directors of the Company who need not qualify under Rule 16b-3, who may administer the Plan with respect to Key Employees who are not Section 16 Persons, may grant Awards under the Plan to such Key Employees and may determine all terms of such Awards. To the extent permitted by applicable law, the Board may also appoint a committee, composed of one or more officers of the Company, that may authorize Awards to Employees (who are not Section 16 Persons) within parameters specified by the Board and consistent with any limitations imposed by applicable law.

(b) **Authority of the Committee.** Subject to the provisions of the Plan, the Committee shall have full authority and discretion to take any actions it deems necessary or advisable for the administration of the Plan. Such actions shall include without limitation:

(i) selecting Key Employees who are to receive Awards under the Plan;

(ii) determining the type, number, vesting requirements, performance conditions (if any) and their degree of satisfaction, and other features and conditions of such Awards and amending such Awards;

(iii) correcting any defect, supplying any omission, or reconciling or clarifying any inconsistency in the Plan or any Award agreement;

(iv) accelerating the vesting, or extending the post-termination exercise term, or waiving restrictions, of Awards at any time and under such terms and conditions as it deems appropriate;

(v) Re-Pricing outstanding Options or SARs, without the approval of Company stockholders;

(vi) interpreting the Plan and any Award agreements;

(vii) making all other decisions relating to the operation of the Plan; and

(viii) granting Awards to Key Employees who are foreign nationals on such terms and conditions different from those specified in the Plan, which may be necessary or desirable to foster and promote achievement of the purposes of the Plan, and adopting such modifications, procedures, and/or subplans (with any such subplans attached as appendices to the Plan) and the like as may be necessary or desirable to comply with provisions of the laws or regulations of other countries or jurisdictions to ensure the viability of the benefits from Awards granted to Participants employed in such countries or jurisdictions, or to meet the requirements that permit the Plan to operate in a qualified or tax efficient manner, and/or comply with applicable foreign laws or regulations.

The Committee may adopt such rules or guidelines, as it deems appropriate to implement the Plan. The Committee's determinations under the Plan shall be final, conclusive and binding on all persons. The Committee's decisions and determinations need not be uniform and may be made selectively among Participants in the Committee's sole discretion. The Committee's decisions and determinations will be afforded the maximum deference provided by applicable law.

(c) **Indemnification.** To the maximum extent permitted by applicable law, each member of the Committee, or of the Board, or any persons (including without limitation Employees and Officers) who are delegated by the Board or Committee to perform administrative functions in connection with the Plan, shall be indemnified and held harmless by the Company against and from (i) any loss, cost, liability, or expense that

may be imposed upon or reasonably incurred by him or her in connection with or resulting from any claim, action, suit, or proceeding to which he or she may be a party or in which he or she may be involved by reason of any action taken or failure to act under the Plan or any Award agreement, and (ii) from any and all amounts paid by him or her in settlement thereof, with the Company's approval, or paid by him or her in satisfaction of any judgment in any such claim, action, suit, or proceeding against him or her, provided he or she shall give the Company an opportunity, at its own expense, to handle and defend the same before he or she undertakes to handle and defend it on his or her own behalf. The foregoing right of indemnification shall not be exclusive of any other rights of indemnification to which such persons may be entitled under the Company's Certificate of Incorporation or Bylaws, by contract, as a matter of law, or otherwise, or under any power that the Company may have to indemnify them or hold them harmless.

SECTION 4. GENERAL.

(a) **Eligibility.** Only Employees, Non-Employee Directors and Consultants shall be eligible for designation as Key Employees by the Committee.

(b) **Incentive Stock Options.** Only Key Employees who are common-law employees of the Company, a Parent or a Subsidiary shall be eligible for the grant of ISOs. In addition, a Key Employee who is a 10-Percent Shareholder shall not be eligible for the grant of an ISO unless the requirements set forth in section 422(c)(5) of the Code are satisfied. If and to the extent that any Shares are issued under a portion of any Option that exceeds the $100,000 limitation of Section 422 of the Code, such Shares shall not be treated as issued under an ISO notwithstanding any designation otherwise. Certain decisions, amendments, interpretations and actions by the Committee and certain actions by a Participant may cause an Option to cease to qualify as an ISO pursuant to the Code and by accepting an Option the Participant agrees in advance to such disqualifying action taken by either the Participant, the Committee or the Company.

(c) **Restrictions on Shares.** Any Shares issued pursuant to an Award shall be subject to such Company policies, rights of repurchase, rights of first refusal and other transfer restrictions as the Committee may determine. Such restrictions shall apply in addition to any restrictions that may apply to holders of Shares generally and shall also comply to the extent necessary with applicable law. In no event shall the Company be required to issue fractional Shares under this Plan.

(d) **Beneficiaries.** A Participant may designate one or more beneficiaries with respect to an Award by timely filing the prescribed form with the Company. A beneficiary designation may be changed by filing the prescribed form with the Company at any time before the Participant's death. If no beneficiary was designated or if no designated beneficiary survives the Participant, then after a Participant's death any vested Award(s) shall be transferred or distributed to the Participant's estate.

(e) **Performance Conditions.** The Committee may, in its discretion, include performance conditions in any Award.

(f) **Stockholder Rights.** A Participant, or a transferee of a Participant, shall have no rights as a stockholder (including without limitation voting rights or dividend or distribution rights) with respect to any Common Stock covered by an Award until such person becomes entitled to receive such Common Stock, has satisfied any applicable withholding or tax obligations relating to the Award and the Common Stock has been issued to the Participant. No adjustment shall be made for cash or stock dividends or other rights for which the record date is prior to the date when such Common Stock is issued, except as expressly provided in Section 11. The issuance of an Award may be subject to and conditioned upon the Participant's agreement to become a party to a Stockholders Agreement and be bound by its terms.

(g) **Buyout of Awards.** The Committee may at any time offer to buy out, for a payment in cash or cash equivalents (including without limitation Shares issued at Fair Market Value that may or may not be issued under this Plan), an Award previously granted based upon such terms and conditions as the Committee shall establish.

(h) **Termination of Service.** Unless the applicable Award agreement or employment agreement provides otherwise (and in such case, the Award or employment agreement shall govern as to the consequences of a termination of Service for such Awards subject to Section 4(i)), the following rules shall govern the vesting, exercisability and term of outstanding Awards held by a Participant in the event of termination of such Participant's Service (in all cases subject to the term of the Option or SAR as applicable):

(i) if the Service of a Participant is terminated for Cause, then all Options, SARs, unvested portions of Stock Units and unvested portions of Restricted Stock Grants shall terminate and be forfeited immediately without consideration as of the Termination Date (except for repayment of any amounts the Participant had paid to the Company to acquire unvested Shares underlying the forfeited Awards);

(ii) if the Service of Participant is terminated due to the Participant's death or Disability, then the vested portion of his/her then-outstanding Options/SARs may be exercised by such Participant or his or her personal representative within six months after the Termination Date and all unvested portions of any outstanding Awards shall be forfeited without consideration as of the Termination Date (except for repayment of any amounts the Participant had paid to the Company to acquire unvested Shares underlying the forfeited Awards); and

(iii) if the Service of Participant is terminated for any reason other than for Cause or other than due to death or Disability, then the vested portion of his/her then-outstanding Options/SARs may be exercised by such Participant within three months after the Termination Date and all unvested portions of any outstanding Awards shall be forfeited without consideration as of the Termination Date (except for repayment of any amounts the Participant had paid to the Company to acquire unvested Shares underlying the forfeited Awards).

(i) **California Participants.** Awards to California Participants shall also be subject to the following terms regarding the time period to exercise vested Options or SARs after termination of Service. These additional terms shall apply until such time that the Shares are publicly traded and/or the Company is subject to the reporting requirements of the Exchange Act: In the event of termination of a Participant's Service, (i) if such termination was for reasons other than death or Disability or Cause, the Participant shall have at least 30 days after the date of such termination to exercise any of his/her vested outstanding Options or SARs (but in no event later than the expiration of the term of such Options or SARs established by the Committee as of the Award date) or (ii) if such termination was due to death or Disability, the Participant shall have at least six months after the date of such termination to exercise any of his/her vested outstanding Options or SARs (but in no event later than the expiration of the term of such Options or SARs established by the Committee as of the Award date).

(j) **Suspension or Termination of Awards.** If at any time (including after a notice of exercise has been delivered) the Committee (or the Board), reasonably believes that a Participant has committed an act of Cause (which includes a failure to act), the Committee (or Board) may suspend the Participant's right to exercise any Option or SAR (or vesting of Restricted Stock Grants or Stock Units) pending a determination of whether there was in fact an act of Cause. If the Committee (or the Board) determines a Participant has committed an act of Cause, neither the Participant nor his or her estate shall be entitled to exercise any outstanding Option or SAR whatsoever and all of Participant's outstanding Awards shall then terminate without consideration. Any determination by the Committee (or the Board) with respect to the foregoing shall be final, conclusive and binding on all interested parties.

(k) **Code Section 409A.** Notwithstanding anything in the Plan to the contrary, the Plan and Awards granted hereunder are intended to comply with the requirements of Code Section 409A and shall be interpreted in a manner consistent with such intention. In the event that any provision of the Plan or an Award agreement is determined by the Committee to not comply with the applicable requirements of Code Section 409A or the Treasury Regulations or other guidance issued thereunder, the Committee shall have the authority to take such actions and to make such changes to the Plan or an Award Agreement as the Committee deems necessary to comply with such requirements (including without limitation, after the grant date of an Award, increasing the Exercise Price to equal what was the Fair Market Value on the grant date of Award). Each payment to a Participant made pursuant to this Plan shall be considered a separate payment and not one of a series of payments for purposes of Code Section 409A. Notwithstanding the foregoing or anything elsewhere in the Plan or an Award Agreement to the contrary, if upon a Participant's Separation From Service he/she is then a "specified employee" (as defined in Code Section 409A), then solely to the extent necessary to comply with Code Section 409A and avoid the imposition of taxes under Code Section 409A, the Company shall defer payment of "nonqualified deferred compensation" subject to Code Section 409A payable as a result of and within six (6) months following such Separation From Service under this Plan until the earlier of (i) the first business day of the seventh month following the Participant's Separation From Service, or (ii) ten (10) days after the Company receives written confirmation of the

Participant's death. Any such delayed payments shall be made without interest. In no event whatsoever shall the Company be liable for any additional tax, interest or penalties that may be imposed on a Participant by Code Section 409A or any damages for failing to comply with Code Section 409A.

(l) **Electronic Communications.** Subject to compliance with applicable law and/or regulations, an Award agreement or other documentation or notices relating to the Plan and/or Awards may be communicated to Participants by electronic media.

(m) **Unfunded Plan.** Insofar as it provides for Awards, the Plan shall be unfunded. Although bookkeeping accounts may be established with respect to Participants who are granted Awards under this Plan, any such accounts will be used merely as a bookkeeping convenience. The Company shall not be required to segregate any assets which may at any time be represented by Awards, nor shall this Plan be construed as providing for such segregation, nor shall the Company or the Committee be deemed to be a trustee of stock or cash to be awarded under the Plan.

(n) **Liability of Company Plan.** The Company (or members of the Board or Committee) shall not be liable to a Participant or other persons as to: (i) the non-issuance or sale of Shares as to which the Company has been unable to obtain from any regulatory body having jurisdiction the authority deemed by the Company's counsel to be necessary to the lawful issuance and sale of any Shares hereunder; and (ii) any unexpected or adverse tax consequence or any tax consequence expected, but not realized, by any Participant or other person due to the grant, receipt, exercise or settlement of any Award granted under this Plan.

(o) **Reformation.** In the event any provision of this Plan shall be held illegal or invalid for any reason, such provisions will be reformed by the Board if possible and to the extent needed in order to be held legal and valid. If it is not possible to reform the illegal or invalid provisions then the illegality or invalidity shall not affect the remaining parts of this Plan, and this Plan shall be construed and enforced as if the illegal or invalid provision had not been included.

(p) **Successor Provision.** Any reference to a statute, rule or regulation, or to a section of a statute, rule or regulation, is a reference to that statute, rule, regulation, or section as amended from time to time, both before and after the Adoption Date and including any successor provisions.

(q) **Governing Law.** This Plan, and (unless otherwise provided in the Award Agreement) all Awards, shall be construed in accordance with and governed by the laws of the State of Delaware, but without regard to its conflict of law provisions. The Committee may provide that any dispute as to any Award shall be presented and determined in such forum as the Committee may specify, including through binding arbitration. Unless otherwise provided in the Award Agreement, recipients of an Award under the Plan are deemed to submit to the exclusive jurisdiction and venue of the federal or state courts of California to resolve any and all issues that may arise out of or relate to the Plan or any related Award Agreement.

SECTION 5. SHARES SUBJECT TO PLAN AND SHARE LIMITS.

(a) **Basic Limitations.** The Common Stock issuable under the Plan shall be authorized but unissued Shares or treasury Shares. Subject to adjustment as provided in Section 11, the maximum aggregate number of Shares that may be issued:

(i) under the Plan shall not exceed 5,441,999 Shares (the "Share Limit"); and

(ii) pursuant to the exercise of ISOs granted under this Plan shall not exceed 5,441,999 Shares (the "ISO Limit").

(b) **Share Utilization.** If Awards are forfeited or are terminated for any reason (including the Company's repurchase of unvested Shares from either an Option that was early exercised or from a Restricted Stock Grant), then the forfeited/terminated/repurchased Shares underlying such Awards shall not be counted toward the Share Limit. If exercised SARs or Stock Units are settled in Shares, then only the number of Shares (if any) actually issued in settlement of such SARs or Stock Units shall be counted against the Share Limit. If a Participant pays the Exercise Price by Net Exercise or by surrendering previously owned Shares (or by stock attestation) and/or, as permitted by the Committee, pays any withholding tax obligation with respect to an Award by Net Exercise or by electing to have Shares withheld or surrendering previously owned Shares (or by stock attestation), the surrendered Shares and the Shares withheld to pay taxes shall not be counted toward the Share Limit. Any Shares that are delivered and any Awards that are granted by, or become obligations of, the Company, as a result of the assumption by the Company of, or in substitution for, outstanding awards previously granted by another entity (as provided in Sections 6(e), 8(f), 9(e) or 10(e)) shall not be counted toward the Share Limit or ISO Limit.

(c) **Dividend Equivalents.** Any dividend equivalents distributed under the Plan shall not be counted against the Share Limit.

SECTION 6. TERMS AND CONDITIONS OF OPTIONS.

(a) **Stock Option Agreement.** Each Award of an Option under the Plan shall be evidenced by a Stock Option Agreement between the Optionee and the Company. Such Option shall be subject to all applicable terms and conditions of the Plan and may be subject to any other terms and conditions that are not inconsistent with the Plan (including without limitation any performance conditions). The provisions of the various Stock Option Agreements entered into under the Plan need not be identical. The Stock Option Agreement shall also specify whether the Option is an ISO and if not specified then the Option shall be an NSO.

(b) **Number of Shares.** Each Stock Option Agreement shall specify the number of Shares that are subject to the Option and shall provide for the adjustment of such number in accordance with Section 11.

(c) **Exercise Price.** An Option's Exercise Price shall be established by the Committee and set forth in a Stock Option Agreement. Except with respect to outstanding stock options being assumed or Options being granted in exchange for cancellation of options granted by another issuer as provided under Section 6(e), the Exercise Price of an Option shall not be less than 100% of the Fair Market Value (110% for 10-Percent Shareholders in the case of ISOs) of a Share on the date of Award.

(d) **Exercisability and Term.** Each Stock Option Agreement shall specify the date when all or any installment of the Option is to become vested and/or exercisable. The Stock Option Agreement shall also specify the term of the Option; provided, however that the term of an Option shall in no event exceed ten (10) years from the date of Award. An ISO that is granted to a 10-Percent Shareholder shall have a maximum term of five (5) years. No Option can be exercised after the expiration date specified in the applicable Stock Option Agreement. A Stock Option Agreement may provide for accelerated exercisability in the event of the Optionee's death, Disability or retirement or other events. A Stock Option Agreement may permit an Optionee to exercise an Option before it is vested (an "early exercise"), subject to the Company's right of repurchase at the original Exercise Price of any Shares acquired under the unvested portion of the Option which right of repurchase shall lapse at the same rate the Option would have vested had there been no early exercise. In no event shall the Company be required to issue fractional Shares upon the exercise of an Option and the Committee may specify a minimum number of Shares that must be purchased in any one Option exercise.

(e) **Modifications or Assumption of Options.** Within the limitations of the Plan, the Committee may modify, extend or assume outstanding Options or may accept the cancellation of outstanding stock options (whether granted by the Company or by another issuer) in return for the grant of new Options for the same or a different number of Shares and at the same or a different Exercise Price. For the avoidance of doubt, the Committee may in its discretion Re-Price outstanding Options provided, however, that the new Exercise Price of a Re-Priced Option shall not be less than the Fair Market Value on the date of the Re-Pricing. No modification of an Option shall, without the consent of the Optionee, impair his or her rights or increase his or her obligations under such Option.

(f) **Assignment or Transfer of Options.** Except as otherwise provided in the applicable Stock Option Agreement and then only to the extent permitted by applicable law, no Option shall be transferable by the Optionee other than by will or by the laws of descent and distribution. Except as otherwise provided in the applicable Stock Option Agreement, an Option may be exercised during the lifetime of the Optionee only by Optionee or by the guardian or legal representative of the Optionee. Except as otherwise provided in the applicable Stock Option Agreement, no Option or interest therein may be subject to a short position or a Call Equivalent Position or Put Equivalent Position, nor may any Option or interest therein be gifted, transferred, assigned, alienated, pledged, hypothecated, attached, sold, or encumbered by the Optionee during his/her lifetime, whether by operation of law or otherwise, or be made subject to execution, attachment or similar process.

(g) **Additional Disclosure.** Solely to the extent that the Company is relying on the exemption from registration under Section 12(g) of the Exchange Act, as provided by Rule 12h-1(f) of the Exchange Act, the Company shall provide (or make available to) Optionees with the additional disclosures required by Rule 12h-1(f)(1)(vi) of the Exchange Act. As a condition to receiving these additional disclosures, an Optionee shall agree in writing to keep the information provided in these additional disclosures confidential. If an Optionee does not agree in writing to keep this information confidential, then the Company shall not be required to provide such Optionee with the additional disclosures required by this Section 6(g).

SECTION 7. PAYMENT FOR OPTION SHARES.

(a) **General Rule.** The entire Exercise Price of Shares issued upon exercise of Options shall be payable in cash (or check) at the time when such Shares are purchased by the Optionee, except as follows and if so provided for in an applicable Stock Option Agreement:

(i) In the case of an ISO granted under the Plan, payment shall be made only pursuant to the express provisions of the applicable Stock Option Agreement. The Stock Option Agreement may specify that payment may be made in any form(s) described in this Section 7.

(ii) In the case of an NSO granted under the Plan, the Committee may in its discretion, at any time accept payment in any form(s) described in this Section 7.

(b) **Surrender of Stock.** To the extent that the Committee makes this Section 7(b) applicable to an Option in a Stock Option Agreement, payment for all or any part of the Exercise Price may be made with Shares which have already been owned by the Optionee for such duration as shall be specified by the Committee. Such Shares shall be valued at their Fair Market Value on the date when the new Shares are purchased under the Plan.

(c) **Cashless Exercise.** To the extent that the Committee makes this Section 7(c) applicable to an Option in a Stock Option Agreement, payment for all or a part of the Exercise Price may be made through Cashless Exercise.

(d) **Net Exercise.** To the extent that the Committee makes this Section 7(d) applicable to an Option in a Stock Option Agreement, payment for all or a part of the Exercise Price may be made through Net Exercise.

(e) **Other Forms of Payment.** To the extent that the Committee makes this Section 7(e) applicable to an Option in a Stock Option Agreement, payment may be made in any other form that is consistent with applicable laws, regulations and rules and approved by the Committee.

SECTION 8. TERMS AND CONDITIONS OF STOCK APPRECIATION RIGHTS.

(a) **SAR Agreement.** Each Award of a SAR under the Plan shall be evidenced by a SAR Agreement between the Participant and the Company. Such SAR shall be subject to all applicable terms of the Plan and may be subject to any other terms that are not inconsistent with the Plan (including without limitation any performance conditions). A SAR Agreement may provide for a maximum limit on the amount of any payout notwithstanding the Fair Market Value on the date of exercise of the SAR. The provisions of the various SAR Agreements entered into under the Plan need not be identical. SARs may be granted in consideration of a reduction in the Participant's other compensation.

(b) **Number of Shares.** Each SAR Agreement shall specify the number of Shares to which the SAR pertains and is subject to adjustment of such number in accordance with Section 11.

(c) **Exercise Price.** Each SAR Agreement shall specify the Exercise Price. A SAR Agreement may specify an Exercise Price that varies in accordance with a predetermined formula while the SAR is outstanding. Except with respect to outstanding stock appreciation rights being assumed or SARs being granted in exchange for cancellation of stock appreciation rights granted by another issuer as provided under Section 8(f), the Exercise Price of a SAR shall not be less than 100% of the Fair Market Value on the date of Award.

(d) **Exercisability and Term.** Each SAR Agreement shall specify the date when all or any installment of the SAR is to become exercisable. The SAR Agreement shall also specify the term of the SAR which shall not exceed ten years from the date of Award. No SAR can be exercised after the expiration date specified in the applicable SAR Agreement. A SAR Agreement may provide for accelerated exercisability in the event of the Participant's death, or Disability or other events. SARs may be awarded in combination with Options or other Awards, and such an Award may provide that the SARs will not be exercisable unless the related Options or other Awards are forfeited. A SAR may be included in an ISO only at the time of Award but may be included in an NSO at the time of Award or at any subsequent time, but not later than six months before the expiration of such NSO. A SAR granted under the Plan may provide that it will be exercisable only in the event of a Change in Control.

(e) **Exercise of SARs.** If, on the date when a SAR expires, the Exercise Price under such SAR is less than the Fair Market Value on such date but any portion of such SAR has not been exercised or surrendered, then such SAR may automatically be deemed to be exercised as of such date with respect to such portion to the extent so provided in the applicable SAR agreement. Upon exercise of a SAR, the Participant (or any person having the right to exercise the SAR after Participant's death) shall receive from the Company (i) Shares, (ii) cash or (iii) any combination of Shares and cash, as the Committee shall determine. The amount of cash and/or the Fair Market Value of Shares received upon exercise of SARs shall, in the aggregate, be equal to the amount by which the Fair Market Value (on the date of surrender) of the Shares subject to the SARs exceeds the Exercise Price of the Shares.

(f) **Modification or Assumption of SARs.** Within the limitations of the Plan, the Committee may modify, extend or assume outstanding SARs or may accept the cancellation of outstanding SARs (including stock appreciation rights granted by another issuer) in return for the grant of new SARs for the same or a different number of Shares and at the same or a different Exercise Price. For the avoidance of doubt, the Committee may in its discretion Re-Price outstanding SARs provided, however, that the new Exercise Price of a Re-Priced SAR shall not be less than the Fair Market Value on the date of the Re-Pricing. No modification of a SAR shall, without the consent of the Participant, impair his or her rights or increase his or her obligations under such SAR.

(g) **Assignment or Transfer of SARs.** Except as otherwise provided in the applicable SAR Agreement and then only to the extent permitted by applicable law, no SAR shall be transferable by the Participant other than by will or by the laws of descent and distribution. Except as otherwise provided in the applicable SAR Agreement, a SAR may be exercised during the lifetime of the Participant only by the Participant or by the guardian or legal representative of the Participant. No SAR or interest therein may be transferred, assigned, alienated, pledged, hypothecated, attached, sold, or encumbered by the Participant during his or her lifetime, whether by operation of law or otherwise, or be made subject to execution, attachment or similar process.

SECTION 9. TERMS AND CONDITIONS FOR RESTRICTED STOCK GRANTS.

(a) **Restricted Stock Grant Agreement.** Each Restricted Stock Grant awarded under the Plan shall be evidenced by a Restricted Stock Grant Agreement between the Participant and the Company. Each Restricted Stock Grant shall be subject to all applicable terms and conditions of the Plan and may be subject to any other terms and conditions that are not inconsistent with the Plan (including without limitation any performance conditions). The provisions of the Restricted Stock Grant Agreements entered into under the Plan need not be identical.

(b) **Number of Shares and Payment.** Each Restricted Stock Grant Agreement shall specify the number of Shares to which the Restricted Stock Grant pertains and is subject to adjustment of such number in accordance with Section 11. Restricted Stock Grants may be issued with or without cash consideration under the Plan.

(c) **Vesting Conditions.** Each Restricted Stock Grant may or may not be subject to vesting. Vesting shall occur, in full or in installments, upon satisfaction of the conditions specified in the Restricted Stock Grant Agreement. A Restricted Stock Grant Agreement may provide for accelerated vesting in the event of the Participant’s death, or Disability or other events.

(d) **Voting and Dividend Rights.** The holder of a Restricted Stock Grant (irrespective of whether the Shares subject to the Restricted Stock Grant are vested or unvested) awarded under the Plan shall have the same voting, dividend and other rights

as the Company's other stockholders. However, any dividends received on Shares that are unvested (whether such dividends are in the form of cash or Shares) may be subject to the same vesting conditions and restrictions as the Restricted Stock Grant with respect to which the dividends were paid. Such additional Shares issued as dividends that are subject to the Restricted Stock Grant shall not reduce the number of Shares available for issuance under Section 5.

(e) **Modification or Assumption of Restricted Stock Grants.** Within the limitations of the Plan, the Committee may modify or assume outstanding Restricted Stock Grants or may accept the cancellation of outstanding Restricted Stock Grants (including stock granted by another issuer) in return for the grant of new Restricted Stock Grants for the same or a different number of Shares. No modification of a Restricted Stock Grant shall, without the consent of the Participant, impair his or her rights or increase his or her obligations under such Restricted Stock Grant.

(f) **Assignment or Transfer of Restricted Stock Grants.** Except as provided in Section 14, or in a Restricted Stock Grant Agreement, or as required by applicable law, a Restricted Stock Grant awarded under the Plan shall not be assigned, attached, garnished, optioned, transferred or made subject to any creditor's process, whether voluntarily, involuntarily or by operation of law. Any act in violation of this Section 9(f) shall be void. However, this Section 9(f) shall not preclude a Participant from designating a beneficiary pursuant to Section 4(d) nor shall it preclude a transfer of Restricted Stock Grant Awards by will or pursuant to Section 4(d).

SECTION 10. TERMS AND CONDITIONS FOR STOCK UNITS.

(a) **Stock Unit Agreement.** Each grant of Stock Units under the Plan shall be evidenced by a Stock Unit Agreement between the Participant and the Company. Such Stock Units shall be subject to all applicable terms of the Plan and may be subject to any other terms that are not inconsistent with the Plan (including without limitation any performance conditions). The provisions of the various Stock Unit Agreements entered into under the Plan need not be identical. Stock Units may be granted in consideration of a reduction in the Participant's other compensation.

(b) **Number of Shares and Payment.** Each Stock Unit Agreement shall specify the number of Shares to which the Stock Unit Award pertains and is subject to adjustment of such number in accordance with Section 11. To the extent that an Award is granted in the form of Stock Units, no cash consideration shall be required of the Award recipients.

(c) **Vesting Conditions.** Each Award of Stock Units may or may not be subject to vesting. Vesting shall occur, in full or in installments, upon satisfaction of the conditions specified in the Stock Unit Agreement. A Stock Unit Agreement may provide for accelerated vesting in the event of the Participant's death, or Disability or other events.

(d) **Voting and Dividend Rights.** The holders of Stock Units shall have no voting rights. Prior to settlement or forfeiture, any Stock Unit awarded under the Plan may, at the Committee's discretion, carry with it a right to dividend equivalents. Such right

entitles the holder to be credited with an amount equal to all cash or Common Stock dividends paid on one Share while the Stock Unit is outstanding. Dividend equivalents may be converted into additional Stock Units. Settlement of dividend equivalents may be made in the form of cash, in the form of Shares, or in a combination of both. Prior to vesting of the Stock Units, any dividend equivalents accrued on such unvested Stock Units may be subject to the same vesting conditions and restrictions as the Stock Units to which they attach.

(e) **Modification or Assumption of Stock Units.** Within the limitations of the Plan, the Committee may modify or assume outstanding Stock Units or may accept the cancellation of outstanding Stock Units (including stock units granted by another issuer) in return for the grant of new Stock Units for the same or a different number of Shares. No modification of a Stock Unit shall, without the consent of the Participant, impair his or her rights or increase his or her obligations under such Stock Unit.

(f) **Assignment or Transfer of Stock Units.** Except as provided in Section 14, or in a Stock Unit Agreement, or as required by applicable law, Stock Units shall not be assigned, attached, garnished, optioned, transferred or made subject to any creditor's process, whether voluntarily, involuntarily or by operation of law. Any act in violation of this Section 10(f) shall be void. However, this Section 10(f) shall not preclude a Participant from designating a beneficiary pursuant to Section 4(d) nor shall it preclude a transfer of Stock Units pursuant to Section 4(d).

(g) **Form and Time of Settlement of Stock Units.** Settlement of vested Stock Units may be made in the form of (a) cash, (b) Shares or (c) any combination of both, as determined by the Committee. The actual number of Stock Units eligible for settlement may be larger or smaller than the number included in the original Award. Methods of converting Stock Units into cash may include (without limitation) a method based on the average Fair Market Value of Shares over a series of trading days. Except as otherwise provided in a Stock Unit Agreement or a timely completed deferral election, vested Stock Units shall be settled within thirty days after vesting. The distribution may occur or commence when all vesting conditions applicable to the Stock Units have been satisfied or have lapsed, or it may be deferred, in accordance with applicable law, to a later specified date. The amount of a deferred distribution may be increased by an interest factor or by dividend equivalents. Until an Award of Stock Units is settled, the number of such Stock Units shall be subject to adjustment pursuant to Section 11.

(h) **Creditors' Rights.** A holder of Stock Units shall have no rights other than those of a general creditor of the Company. Stock Units represent an unfunded and unsecured obligation of the Company, subject to the terms and conditions of the applicable Stock Unit Agreement.

(i) **Additional Disclosure.** Solely to the extent that the Company is relying on the exemption from registration under Section 12(g) of the Exchange Act, as provided by Rule 12h-1(f) of the Exchange Act, the Company shall provide (or make available to) Participants holding Stock Units with the additional disclosures required by Rule 12h-1(f)(1)(vi) of the Exchange Act. As a condition to receiving these additional disclosures,

any such Participant shall agree in writing to keep the information provided in these additional disclosures confidential. If any such Participant does not agree in writing to keep this information confidential, then the Company shall not be required to provide such Participant with the additional disclosures required by this Section 10(i).

SECTION 11. ADJUSTMENTS.

(a) **Adjustments.** In the event of a subdivision of the outstanding Shares, a declaration of a dividend payable in Shares, a declaration of a dividend payable in a form other than Shares in an amount that has a material effect on the price of Shares, a combination or consolidation of the outstanding Shares (by reclassification or otherwise) into a lesser number of Shares, a stock split, a reverse stock split, a reclassification or other distribution of the Shares without the receipt of consideration by the Company, of or on the Common Stock, a recapitalization, a combination, a spin-off or a similar occurrence, the Committee shall make equitable and proportionate adjustments to:

(i) the Share Limit and ISO Limit specified in Section 5(a);

(ii) the number and kind of securities available for Awards (and which can be issued as ISOs) under Section 5;

(iii) the number and kind of securities covered by each outstanding Award;

(iv) the Exercise Price under each outstanding Option and SAR; and

(v) the number and kind of outstanding securities issued under the Plan.

(b) **Participant Rights.** Except as provided in this Section 11, a Participant shall have no rights by reason of any issue by the Company of stock of any class or securities convertible into stock of any class, any subdivision or consolidation of shares of stock of any class, the payment of any stock dividend or any other increase or decrease in the number of shares of stock of any class. If by reason of an adjustment pursuant to this Section 11, a Participant's Award covers additional or different shares of stock or securities, then such additional or different shares and the Award in respect thereof shall be subject to all of the terms, conditions and restrictions which were applicable to the Award and the Shares subject to the Award prior to such adjustment.

(c) **Fractional Shares.** Any adjustment of Shares pursuant to this Section 11 shall be rounded down to the nearest whole number of Shares. Under no circumstances shall the Company be required to authorize or issue fractional shares. To the extent permitted by applicable law, no consideration shall be provided as a result of any fractional shares not being issued or authorized.

SECTION 12. EFFECT OF A CHANGE IN CONTROL.

(a) **Merger or Reorganization.** In the event that there is a Change in Control and/or the Company is a party to a merger or acquisition or reorganization or similar transaction, outstanding Awards shall be subject to the merger agreement or other applicable transaction agreement. Such agreement may provide, without limitation, that subject to the consummation of the applicable transaction, for the assumption (or substitution) of outstanding Awards by the surviving corporation or its parent, for their continuation by the Company (if the Company is a surviving corporation), for accelerated vesting or for their cancellation with or without consideration, in all cases without the consent of the Participant.

(b) **Acceleration of Vesting.** In the event that a Change in Control occurs and there is no assumption, substitution or continuation of Awards pursuant to Section 12(a), the Committee in its discretion may provide that all Awards shall vest and become exercisable as of immediately before such Change in Control. For avoidance of doubt, "substitution" includes, without limitation, an Award being replaced by a cash award that provides an equivalent intrinsic value (wherein intrinsic value equals the difference between the market value of a share and any exercise price). The Committee may also in its discretion include in an Award agreement a requirement that unless Section 280G Approval has been obtained, no acceleration of vesting shall occur with respect to an Award to the extent that such acceleration would, after taking into account any other payments in the nature of compensation to which the Participant would have a right to receive from the Company and any other person contingent upon the occurrence of such Change in Control, result in a "parachute payment" as defined under Code Section 280G.

SECTION 13. LIMITATIONS ON RIGHTS.

(a) **Retention Rights.** Neither the Plan nor any Award granted under the Plan shall be deemed to give any individual a right to remain in Service as an Employee, Consultant, or Non-Employee Director of the Company, a Parent, a Subsidiary or an Affiliate or to receive any future Awards under the Plan. The Company and its Parents and Subsidiaries and Affiliates reserve the right to terminate the Service of any person at any time, and for any reason, subject to applicable laws, the Company's Certificate of Incorporation and Bylaws and a written employment agreement (if any).

(b) **Regulatory Requirements.** Any other provision of the Plan notwithstanding, the obligation of the Company to issue Shares or other securities under the Plan shall be subject to all applicable laws, rules and regulations and such approval by any regulatory body as may be required. The Company reserves the right to restrict, in whole or in part, the delivery of Shares or other securities pursuant to any Award prior to the satisfaction of all legal requirements relating to the issuance of such Shares or other securities, to their registration, qualification or listing or to an exemption from registration, qualification or listing.

(c) **Dissolution.** To the extent not previously exercised or settled, all Options, SARs, Stock Units and unvested Restricted Stock Grants shall terminate immediately prior to the dissolution or liquidation of the Company and shall be forfeited to the Company without consideration (except for repayment of any amounts a Participant had paid to the Company to acquire unvested Shares underlying the forfeited Awards).

SECTION 14. WITHHOLDING TAXES.

(a) **General.** A Participant shall make arrangements satisfactory to the Company for the satisfaction of any withholding tax obligations that arise in connection with his or her Award. The Company shall not be required to issue any Shares or make any cash payment under the Plan until such obligations are satisfied and the Company shall, to the extent permitted by law, have the right to deduct any such taxes from any payment of any kind otherwise due to the Participant.

(b) **Share Withholding.** The Committee in its discretion may permit or require a Participant to satisfy all or part of his or her withholding tax obligations by having the Company withhold all or a portion of any Shares that otherwise would be issued to him or her or by surrendering all or a portion of any Shares that he or she previously acquired (or by stock attestation). Such Shares shall be valued based on the value of the actual trade or, if there is none, the Fair Market Value as of the previous day. Any payment of taxes by assigning Shares to the Company may be subject to restrictions, including, but not limited to, any restrictions required by rules of the SEC. The Committee may also, in its discretion, permit or require a Participant to satisfy withholding tax obligations related to an Award through a sale of Shares underlying the Award or, in the case of Options, through Net Exercise or Cashless Exercise. The number of Shares that are withheld from an Award pursuant to this section may also be limited by the Committee, to the extent necessary, to avoid liability-classification of the Award (or other adverse accounting treatment) under applicable financial accounting rules including without limitation by requiring that no amount may be withheld which is in excess of minimum statutory withholding rates. The Committee, in its discretion, may permit other forms of payment of applicable tax withholding.

SECTION 15. DURATION AND AMENDMENTS.

(a) **Term of the Plan.** The Plan, as set forth herein, is effective on the Adoption Date provided, however, that the Plan is subject to the approval of the Company's stockholders within one year of the Adoption Date. If the Stockholder Approval Date does not occur before the first anniversary of the Adoption Date, then the Plan shall terminate as of the first anniversary of the Adoption Date and any Awards granted under the Plan shall also immediately terminate without consideration to any Award holder. If the stockholders timely approve the Plan, then the Plan shall terminate on the day before the tenth anniversary of the Adoption Date and may be terminated on any earlier date pursuant to this Section 15. This Plan will not in any way affect outstanding awards that were issued under any other Company equity compensation plans.

(b) **Right to Amend or Terminate the Plan.** The Board may amend or terminate the Plan at any time and for any reason. No Awards shall be granted under the Plan after the Plan's termination. An amendment of the Plan shall be subject to the approval of the Company's stockholders only to the extent required by applicable laws, regulations or rules. In addition, no such amendment or termination (or amendment of an executed Award Agreement) shall be made which would materially impair the rights of any Participant, without such Participant's written consent, under any then-outstanding Award. In the event of any conflict in terms between the Plan and any Award agreement, the terms of the Plan shall prevail and govern.

SECTION 16. EXECUTION.

To record the adoption of the Plan by the Board, the Company has caused its duly authorized Officer to execute this Plan on behalf of the Company.

NINA BIOTHERAPEUTICS, INC.

By: /s/ Isaac Ciechanover

Name: Isaac Ciechanover

Title: President and CEO

Exhibit 10.5

PINTA BIOTHERAPEUTICS, INC.

2012 EQUITY INCENTIVE PLAN

EFFECTIVE AS OF NOVEMBER 26, 2012

PINTA BIOTHERAPEUTICS, INC.
2012 EQUITY INCENTIVE PLAN

EFFECTIVE AS OF NOVEMBER 26, 2012

SECTION 1. INTRODUCTION.

The Company's Board of Directors adopted the Pinta Biotherapeutics, Inc. 2012 Equity Incentive Plan effective as of the Adoption Date subject to obtaining Company stockholder approval as provided in Section 15 below. Awards granted under the Plan prior to the Stockholder Approval Date may not be exercised or Shares released to any Participant until such stockholder approval is obtained.

The purpose of the Plan is to promote the long-term success of the Company and the creation of stockholder value by offering Key Employees an opportunity to acquire a proprietary interest in the success of the Company, or to increase such interest, and to encourage such Key Employees to continue to provide services to the Company and to attract new individuals with outstanding qualifications.

The Plan seeks to achieve this purpose by providing for Awards in the form of Options (which may constitute Incentive Stock Options or Nonstatutory Stock Options), Stock Appreciation Rights, Restricted Stock Grants and/or Stock Units.

Capitalized terms shall have the meaning provided in Section 2 unless otherwise provided in this Plan or any related Stock Option Agreement, SAR Agreement, Restricted Stock Grant Agreement or Stock Unit Agreement.

SECTION 2. DEFINITIONS. If a Participant's employment agreement or Award Agreement (or other written agreement executed by and between Participant and the Company) expressly includes defined terms that expressly are different from and/or conflict with the defined terms contained in this Plan then the defined terms contained in the employment agreement or Award Agreement (or other written agreement executed by and between Participant and the Company) shall govern and shall supersede the definitions provided in this Plan.

(a) "**Adoption Date**" means November 26, 2012.

(b) "**Affiliate**" means any entity other than a Subsidiary, if the Company and/or one or more Subsidiaries own not less than 50% of such entity.

(c) **"Award"** means any award of an Option, SAR, Restricted Stock Grant or Stock Unit under the Plan.

(d) "**Board**" means the Board of Directors of the Company, as constituted from time to time.

(e) "**California Participant**" means a Participant whose Award was issued in reliance on Section 25102(o) of the California Corporations Code.

(f) "**Call Equivalent Position**" means the term "call equivalent position" as defined under Rule 16a-1(b) of the Exchange Act.

(g) "**Cashless Exercise**" means, to the extent that a Stock Option Agreement so provides and as permitted by applicable law and in accordance with any procedures established by the Committee, an arrangement whereby payment of some or all of the aggregate Exercise Price may be made all or in part by delivery of an irrevocable direction to a securities broker to sell Shares and to deliver all or part of the sale proceeds to the Company. Cashless Exercise may also be utilized to satisfy an Option's tax withholding obligations as provided in Section 14(b).

(h) "**Cause**" means, with respect to a Participant, the occurrence of any of the following: (i) a conviction of a Participant for a felony crime or the failure of a Participant to contest prosecution for a felony crime, or (ii) a Participant's misconduct, fraud, disloyalty or dishonesty (as such terms may be defined by the Committee in its sole discretion), or (iii) any unauthorized use or disclosure of confidential information or trade secrets by a Participant, or (iv) a Participant's negligence, malfeasance, breach of fiduciary duties, neglect of duties, or (v) any material violation by a Participant of a written Company or Subsidiary or Affiliate policy or any material breach by a Participant of a written agreement with the Company or Subsidiary or Affiliate, or (vi) any other act or omission by a Participant that, in the opinion of the Committee, could reasonably be expected to adversely affect the Company's or a Subsidiary's or an Affiliate's business, financial condition, prospects and/or reputation. In each of the foregoing subclauses (i) through (vi), whether or not a "Cause" event has occurred will be determined by the Committee in its sole discretion or, in the case of Participants who are directors or Officers or Section 16 Persons, the Board, each of whose determination shall be final, conclusive and binding. A Participant's Service shall be deemed to have terminated for Cause if, after the Participant's Service has terminated, facts and circumstances are discovered that would have justified a termination for Cause, including, without limitation, violation of material Company policies or breach of noncompetition, confidentiality or other restrictive covenants that may apply to the Participant.

(i) "**Change in Control**" means the occurrence of any of the following:

(i) the merger, consolidation, recapitalization, or reorganization of Company, other than a merger, consolidation, recapitalization or reorganization which would result in the voting securities of Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity) more than fifty percent (50%) of the total voting power represented by the voting securities of Company or such surviving entity outstanding immediately after such merger, consolidation, recapitalization or reorganization;

(ii) the sale or disposition by Company's stockholders of more than fifty percent (50%) of the total voting securities of Company;

(iii) a complete liquidation or dissolution of the Company;

(iv) the sale or disposition by Company of all or substantially all of its assets; or

(v) the exclusive licensing to a third party of all or substantially all of Company's intellectual property.

Notwithstanding the foregoing, the following transactions shall not constitute a Change in Control: (i) a transaction the sole purpose of which is to change the state of the Company's incorporation or to create a holding company that will be owned in substantially the same proportions by the persons who held the Company's securities immediately before such transaction; (ii) a transaction or series of related transactions involving the sale of securities by the Company primarily for financing purposes; (iii) a merger or consolidation involving only the Company and one or more companies under common management control with the Company; or (iv) an IPO. If the timing of payments provided under an Award agreement is based on or triggered by a Change in Control then, to extent necessary to avoid violating Code Section 409A, a Change in Control must also constitute a "change in control event" (as defined under Code Section 409A regulations and applicable guidance).

(j) "**Code**" means the Internal Revenue Code of 1986, as amended, and the regulations and interpretations promulgated thereunder.

(k) "**Committee**" means a committee consisting of members of the Board that is appointed by the Board (as described in Section 3) to administer the Plan. If no Committee has been appointed, the full Board shall constitute the Committee.

(l) "**Common Stock**" means the Company's common stock, par value $0.0001 per Share, and any other securities into which such shares are changed, for which such shares are exchanged or which may be issued in respect thereof.

(m) "**Company**" means Pinta Biotherapeutics, Inc., a Delaware corporation.

(n) "**Consultant**" means an individual (or entity) which performs bona fide services to the Company, a Parent, a Subsidiary or an Affiliate other than as an Employee or Non-Employee Director.

(o) "**Disability**" means that the Participant is classified as disabled under a long-term disability policy of the Company or, if no such policy applies, the Participant is unable to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment which can be expected to result in death or which has lasted or can be expected to last for a continuous period of not less than 12 months. The Disability of a Key Employee shall be determined solely by the Committee on the basis of such medical evidence as the Committee deems warranted under the circumstances.

(p) "**Employee**" means any individual who is a common-law employee of the Company, or of a Parent, or of a Subsidiary or of an Affiliate.

(q) "**Exchange Act**" means the Securities Exchange Act of 1934, as amended.

(r) "**Exercise Price**" means, in the case of an Option, the amount for which a Share may be purchased upon exercise of such Option, as specified in the applicable Stock Option Agreement. "Exercise Price," in the case of a SAR, means an amount, as specified in the applicable SAR Agreement, which is subtracted from the Fair Market Value in determining the amount payable to a Participant upon exercise of such SAR.

(s) "**Fair Market Value**" means the market price of a Share, determined by the Committee as follows:

(i) If the Shares were traded on a stock exchange (such as the New York Stock Exchange, NYSE Amex, the NASDAQ Global Market or NASDAQ Capital Market) at the time of determination, then the Fair Market Value shall be equal to the regular session closing price for such stock as reported by such exchange (or the exchange or market with the greatest volume of trading in the Shares) on the date of determination, or if there were no sales on such date, on the last date preceding such date on which a closing price was reported;

(ii) If the Shares were traded on the OTC Bulletin Board at the time of determination, then the Fair Market Value shall be equal to the last-sale price reported by the OTC Bulletin Board for such date, or if there were no sales on such date, on the last date preceding such date on which a sale was reported; and

(iii) If neither of the foregoing provisions is applicable, then the Fair Market Value shall be determined by the Committee in good faith using a reasonable application of a reasonable valuation method as the Committee deems appropriate.

Whenever possible, the determination of Fair Market Value by the Committee shall be based on the prices reported by the applicable exchange or the OTC Bulletin Board, as applicable, or a nationally recognized publisher of stock prices or quotations (including an electronic on-line publication). Such determination shall be conclusive and binding on all persons.

(t) "**Incentive Stock Option**" or "**ISO**" means an incentive stock option described in Code section 422.

(u) "**IPO**" means an initial public offering by the Company of its equity securities pursuant to an effective registration statement filed with the SEC.

(v) "**Key Employee**" means an Employee, Non-Employee Director or Consultant who has been selected by the Committee to receive an Award under the Plan.

(w) "**Net Exercise**" means, to the extent that a Stock Option Agreement so provides and as permitted by applicable law, an arrangement pursuant to which the number of Shares issued to the Optionee in connection with the Optionee's exercise of the Option will be reduced by the Company's retention of a portion of such Shares. Upon such a net exercise of an Option, the Optionee will receive a net number of Shares that is equal to (i) the number of Shares as to which the Option is being exercised minus (ii) the quotient (rounded down to the nearest whole number) of the aggregate Exercise Price of the Shares being exercised divided by the Fair Market Value of a Share on the Option exercise date. The number of Shares covered by clause (ii) will be retained by the Company and not delivered to the Optionee. No fractional Shares will be created as a result of a Net Exercise and the Optionee must contemporaneously pay for any portion of the aggregate Exercise Price that is not covered by the Shares retained by the Company under clause (ii). The number of Shares delivered to the Optionee may be further reduced if Net Exercise is utilized under Section 14(b) to satisfy applicable tax withholding obligations.

(x) "**Non-Employee Director**" means a member of the Board who is not an Employee.

(y) "**Nonstatutory Stock Option**" or "**NSO**" means a stock option that is not an ISO.

(z) "**Officer**" means an individual who is an officer of the Company within the meaning of Rule 16a-1(f) of the Exchange Act.

(aa) "**Option**" means an ISO or NSO granted under the Plan entitling the Optionee to purchase Shares under the Plan as provided in Section 6.

(bb) "**Optionee**" means an individual, estate or other entity that holds an Option.

(cc) "**Parent**" means any corporation (other than the Company) in an unbroken chain of corporations ending with the Company, if each of the corporations other than the Company owns stock possessing fifty percent (50%) or more of the total combined voting power of all classes of stock in one of the other corporations in such chain. A corporation that attains the status of a Parent on a date after the Adoption Date shall be considered a Parent commencing as of such date.

(dd) "**Participant**" means an individual or estate or other entity that holds an Award.

(ee) "**Plan**" means this Pinta Biotherapeutics, Inc. 2012 Equity Incentive Plan as it may be amended from time to time.

(ff) "**Put Equivalent Position**" means the term "put equivalent position" as defined under Rule 16a-1(h) of the Exchange Act.

(gg) "**Re-Price**" means that the Company has lowered or reduced the Exercise Price of outstanding Options and/or outstanding SARs for any Participant(s) in a manner described by SEC Regulation S-K Item 402(d)(2)(viii) (or as described in any successor provision(s) or definition(s)).

(hh) "**Restricted Stock Grant**" means Shares awarded under the Plan as provided in Section 9.

(ii) "**Restricted Stock Grant Agreement**" means the agreement described in Section 9 evidencing each Award of a Restricted Stock Grant.

(jj) "**SAR Agreement**" means the agreement described in Section 8 evidencing each Award of a Stock Appreciation Right.

(kk) "**SEC**" means the Securities and Exchange Commission.

(ll) "**Section 16 Persons**" means those Officers or directors or Non-Employee Directors or other persons who are subject to Section 16 of the Exchange Act.

(mm) "**Section 280G Approval**" means the separate approval by stockholders owning more than 75% of the voting power of all outstanding stock of the Company entitled to vote immediately before a Change in Control which approval shall be obtained in compliance with the requirements of Code Section 280G(b)(5)(B), as amended, including any successor thereof, and the regulations promulgated thereunder, as determined by the Committee in its sole discretion.

(nn) "**Securities Act**" means the Securities Act of 1933, as amended.

(oo) "**Separation From Service**" means a Participant's separation from service with the Company within the meaning of Code Section 409A.

(pp) "**Service**" means service as an Employee, Non-Employee Director or Consultant. Service will be deemed terminated as soon as the entity to which Service is being provided is no longer either (i) the Company, (ii) a Parent, (iii) a Subsidiary or (iv) an Affiliate. The Committee determines when Service commences and when Service terminates. The Committee may determine whether any Company transaction, such as a sale or spin-off of a division or subsidiary that employs a Participant, shall be deemed to result in termination of Service for purposes of any affected Awards, and the Committee's decision shall be final, conclusive and binding.

(qq) "**Share**" means one share of Common Stock.

(rr) "**Stock Appreciation Right or SAR**" means a stock appreciation right awarded under the Plan as provided in Section 8.

(ss) "**Stock Option Agreement**" means the agreement described in Section 6 evidencing each Award of an Option.

(tt) "**Stock Unit**" means a bookkeeping entry representing the equivalent of one Share awarded under the Plan as provided in Section 10.

(uu) "**Stock Unit Agreement**" means the agreement described in Section 10 evidencing each Award of Stock Units.

(vv) "**Stockholder Approval Date**" means the date that the Company's stockholders approve this Plan.

(ww) "**Stockholders Agreement**" means any applicable agreement between the Company's stockholders and/or investors that provides certain rights and obligations for stockholders.

(xx) "**Subsidiary**" means any corporation (other than the Company) in an unbroken chain of corporations beginning with the Company, if each of the corporations other than the last corporation in the unbroken chain owns stock possessing fifty percent (50%) or more of the total combined voting power of all classes of stock in one of the other corporations in such chain. A corporation that attains the status of a Subsidiary on a date after the Adoption Date shall be considered a Subsidiary commencing as of such date.

(yy) "**Termination Date**" means the date on which a Participant's Service terminates as determined by the Committee.

(zz) "**10-Percent Shareholder**" means an individual who owns more than ten percent (10%) of the total combined voting power of all classes of outstanding stock of the Company, its Parent or any of its Subsidiaries. In determining stock ownership, the attribution rules of section 424(d) of the Code shall be applied.

SECTION 3. ADMINISTRATION.

(a) **Committee Composition**. A Committee appointed by the Board shall administer the Plan. The Board shall designate one of the members of the Committee as chairperson. Members of the Committee shall serve for such period of time as the Board may determine and shall be subject to removal by the Board at any time. The Board may also at any time terminate the functions of the Committee and reassume all powers and authority previously delegated to the Committee.

Effective with the Shares being publicly traded or the Company being subject to the reporting requirements of the Exchange Act, with respect to Awards to Section 16 Persons, the Committee shall consist either (i) solely of two or more individuals who satisfy the requirements of Rule 16b-3 (or its successor) under the Exchange Act or (ii) of the full Board. The Board may also appoint one or more separate committees of the Board, each composed of directors of the Company who need not qualify under Rule 16b-3, who may administer the Plan with respect to Key Employees who are not Section 16 Persons, may grant Awards under the Plan to such Key Employees and may determine all terms of such Awards. To the extent permitted by applicable law, the Board may also appoint a committee, composed of one or more officers of the Company, that may authorize Awards to Employees (who are not Section 16 Persons) within parameters specified by the Board and consistent with any limitations imposed by applicable law.

(b) **Authority of the Committee**. Subject to the provisions of the Plan, the Committee shall have full authority and discretion to take any actions it deems necessary or advisable for the administration of the Plan. Such actions shall include without limitation:

(i) selecting Key Employees who are to receive Awards under the Plan;

(ii) determining the type, number, vesting requirements, performance conditions (if any) and their degree of satisfaction, and other features and conditions of such Awards and amending such Awards;

(iii) correcting any defect, supplying any omission, or reconciling or clarifying any inconsistency in the Plan or any Award agreement;

(iv) accelerating the vesting, or extending the post-termination exercise term, or waiving restrictions, of Awards at any time and under such terms and conditions as it deems appropriate;

(v) Re-Pricing outstanding Options or SARs, without the approval of Company stockholders;

(vi) interpreting the Plan and any Award agreements;

(vii) making all other decisions relating to the operation of the Plan; and

(viii) granting Awards to Key Employees who are foreign nationals on such terms and conditions different from those specified in the Plan, which may be necessary or desirable to foster and promote achievement of the purposes of the Plan, and adopting such modifications, procedures, and/or subplans (with any such subplans attached as appendices to the Plan) and the like as may be necessary or desirable to comply with provisions of the laws or regulations of other countries or jurisdictions to ensure the viability of the benefits from Awards granted to Participants employed in such countries or jurisdictions, or to meet the requirements that permit the Plan to operate in a qualified or tax efficient manner, and/or comply with applicable foreign laws or regulations.

The Committee may adopt such rules or guidelines, as it deems appropriate to implement the Plan. The Committee's determinations under the Plan shall be final, conclusive and binding on all persons. The Committee's decisions and determinations need not be uniform and may be made selectively among Participants in the Committee's sole discretion. The Committee's decisions and determinations will be afforded the maximum deference provided by applicable law.

(c) **Indemnification**. To the maximum extent permitted by applicable law, each member of the Committee, or of the Board, or any persons (including without limitation Employees and Officers) who are delegated by the Board or Committee to perform administrative functions in connection with the Plan, shall be indemnified and held harmless by the Company against and from (i) any loss, cost, liability, or expense that

may be imposed upon or reasonably incurred by him or her in connection with or resulting from any claim, action, suit, or proceeding to which he or she may be a party or in which he or she may be involved by reason of any action taken or failure to act under the Plan or any Award agreement, and (ii) from any and all amounts paid by him or her in settlement thereof, with the Company's approval, or paid by him or her in satisfaction of any judgment in any such claim, action, suit, or proceeding against him or her, provided he or she shall give the Company an opportunity, at its own expense, to handle and defend the same before he or she undertakes to handle and defend it on his or her own behalf. The foregoing right of indemnification shall not be exclusive of any other rights of indemnification to which such persons may be entitled under the Company's Certificate of Incorporation or Bylaws, by contract, as a matter of law, or otherwise, or under any power that the Company may have to indemnify them or hold them harmless.

SECTION 4. GENERAL.

(a) **Eligibility**. Only Employees, Non-Employee Directors and Consultants shall be eligible for designation as Key Employees by the Committee.

(b) **Incentive Stock Options**. Only Key Employees who are common-law employees of the Company, a Parent or a Subsidiary shall be eligible for the grant of ISOs. In addition, a Key Employee who is a 10-Percent Shareholder shall not be eligible for the grant of an ISO unless the requirements set forth in section 422(c)(5) of the Code are satisfied. If and to the extent that any Shares are issued under a portion of any Option that exceeds the $100,000 limitation of Section 422 of the Code, such Shares shall not be treated as issued under an ISO notwithstanding any designation otherwise. Certain decisions, amendments, interpretations and actions by the Committee and certain actions by a Participant may cause an Option to cease to qualify as an ISO pursuant to the Code and by accepting an Option the Participant agrees in advance to such disqualifying action taken by either the Participant, the Committee or the Company.

(c) **Restrictions on Shares**. Any Shares issued pursuant to an Award shall be subject to such Company policies, rights of repurchase, rights of first refusal and other transfer restrictions as the Committee may determine. Such restrictions shall apply in addition to any restrictions that may apply to holders of Shares generally and shall also comply to the extent necessary with applicable law. In no event shall the Company be required to issue fractional Shares under this Plan.

(d) **Beneficiaries**. A Participant may designate one or more beneficiaries with respect to an Award by timely filing the prescribed form with the Company. A beneficiary designation may be changed by filing the prescribed form with the Company at any time before the Participant's death. If no beneficiary was designated or if no designated beneficiary survives the Participant, then after a Participant's death any vested Award(s) shall be transferred or distributed to the Participant's estate.

(e) **Performance Conditions**. The Committee may, in its discretion, include performance conditions in any Award.

(f) **Stockholder Rights**. A Participant, or a transferee of a Participant, shall have no rights as a stockholder (including without limitation voting rights or dividend or distribution rights) with respect to any Common Stock covered by an Award until such person becomes entitled to receive such Common Stock, has satisfied any applicable withholding or tax obligations relating to the Award and the Common Stock has been issued to the Participant. No adjustment shall be made for cash or stock dividends or other rights for which the record date is prior to the date when such Common Stock is issued, except as expressly provided in Section 11. The issuance of an Award may be subject to and conditioned upon the Participant's agreement to become a party to a Stockholders Agreement and be bound by its terms.

(g) **Buyout of Awards**. The Committee may at any time offer to buy out, for a payment in cash or cash equivalents (including without limitation Shares issued at Fair Market Value that may or may not be issued under this Plan), an Award previously granted based upon such terms and conditions as the Committee shall establish.

(h) **Termination of Service**. Unless the applicable Award agreement or employment agreement provides otherwise (and in such case, the Award or employment agreement shall govern as to the consequences of a termination of Service for such Awards subject to Section 4(i)), the following rules shall govern the vesting, exercisability and term of outstanding Awards held by a Participant in the event of termination of such Participant's Service (in all cases subject to the term of the Option or SAR as applicable):

(i) if the Service of a Participant is terminated for Cause, then all Options, SARs, unvested portions of Stock Units and unvested portions of Restricted Stock Grants shall terminate and be forfeited immediately without consideration as of the Termination Date (except for repayment of any amounts the Participant had paid to the Company to acquire unvested Shares underlying the forfeited Awards);

(ii) if the Service of Participant is terminated due to the Participant's death or Disability, then the vested portion of his/her then-outstanding Options/SARs may be exercised by such Participant or his or her personal representative within six months after the Termination Date and all unvested portions of any outstanding Awards shall be forfeited without consideration as of the Termination Date (except for repayment of any amounts the Participant had paid to the Company to acquire unvested Shares underlying the forfeited Awards); and

(iii) if the Service of Participant is terminated for any reason other than for Cause or other than due to death or Disability, then the vested portion of his/her then-outstanding Options/SARs may be exercised by such Participant within three months after the Termination Date and all unvested portions of any outstanding Awards shall be forfeited without consideration as of the Termination Date (except for repayment of any amounts the Participant had paid to the Company to acquire unvested Shares underlying the forfeited Awards).

(i) **California Participants**. Awards to California Participants shall also be subject to the following terms regarding the time period to exercise vested Options or SARs after termination of Service. These additional terms shall apply until such time that the Shares are publicly traded and/or the Company is subject to the reporting requirements of the Exchange Act: In the event of termination of a Participant's Service, (i) if such termination was for reasons other than death or Disability or Cause, the Participant shall have at least 30 days after the date of such termination to exercise any of his/her vested outstanding Options or SARs (but in no event later than the expiration of the term of such Options or SARs established by the Committee as of the Award date) or (ii) if such termination was due to death or Disability, the Participant shall have at least six months after the date of such termination to exercise any of his/her vested outstanding Options or SARs (but in no event later than the expiration of the term of such Options or SARs established by the Committee as of the Award date).

(j) **Suspension or Termination of Awards**. If at any time (including after a notice of exercise has been delivered) the Committee (or the Board), reasonably believes that a Participant has committed an act of Cause (which includes a failure to act), the Committee (or Board) may suspend the Participant's right to exercise any Option or SAR (or vesting of Restricted Stock Grants or Stock Units) pending a determination of whether there was in fact an act of Cause. If the Committee (or the Board) determines a Participant has committed an act of Cause, neither the Participant nor his or her estate shall be entitled to exercise any outstanding Option or SAR whatsoever and all of Participant's outstanding Awards shall then terminate without consideration. Any determination by the Committee (or the Board) with respect to the foregoing shall be final, conclusive and binding on all interested parties.

(k) **Code Section 409A**. Notwithstanding anything in the Plan to the contrary, the Plan and Awards granted hereunder are intended to comply with the requirements of Code Section 409A and shall be interpreted in a manner consistent with such intention. In the event that any provision of the Plan or an Award agreement is determined by the Committee to not comply with the applicable requirements of Code Section 409A or the Treasury Regulations or other guidance issued thereunder, the Committee shall have the authority to take such actions and to make such changes to the Plan or an Award Agreement as the Committee deems necessary to comply with such requirements (including without limitation, after the grant date of an Award, increasing the Exercise Price to equal what was the Fair Market Value on the grant date of Award). Each payment to a Participant made pursuant to this Plan shall be considered a separate payment and not one of a series of payments for purposes of Code Section 409A. Notwithstanding the foregoing or anything elsewhere in the Plan or an Award Agreement to the contrary, if upon a Participant's Separation From Service he/she is then a "specified employee" (as defined in Code Section 409A), then solely to the extent necessary to comply with Code Section 409A and avoid the imposition of taxes under Code Section 409A, the Company shall defer payment of "nonqualified deferred compensation" subject to Code Section 409A payable as a result of and within six (6) months following such Separation From Service under this Plan until the earlier of (i) the first business day of the seventh month following the Participant's Separation From Service, or (ii) ten (10) days after the Company receives written confirmation of the

Participant's death. Any such delayed payments shall be made without interest. In no event whatsoever shall the Company be liable for any additional tax, interest or penalties that may be imposed on a Participant by Code Section 409A or any damages for failing to comply with Code Section 409A.

(l) **Electronic Communications**. Subject to compliance with applicable law and/or regulations, an Award agreement or other documentation or notices relating to the Plan and/or Awards may be communicated to Participants by electronic media.

(m) **Unfunded Plan**. Insofar as it provides for Awards, the Plan shall be unfunded. Although bookkeeping accounts may be established with respect to Participants who are granted Awards under this Plan, any such accounts will be used merely as a bookkeeping convenience. The Company shall not be required to segregate any assets which may at any time be represented by Awards, nor shall this Plan be construed as providing for such segregation, nor shall the Company or the Committee be deemed to be a trustee of stock or cash to be awarded under the Plan.

(n) **Liability of Company Plan**. The Company (or members of the Board or Committee) shall not be liable to a Participant or other persons as to: (i) the non-issuance or sale of Shares as to which the Company has been unable to obtain from any regulatory body having jurisdiction the authority deemed by the Company's counsel to be necessary to the lawful issuance and sale of any Shares hereunder; and (ii) any unexpected or adverse tax consequence or any tax consequence expected, but not realized, by any Participant or other person due to the grant, receipt, exercise or settlement of any Award granted under this Plan.

(o) **Reformation**. In the event any provision of this Plan shall be held illegal or invalid for any reason, such provisions will be reformed by the Board if possible and to the extent needed in order to be held legal and valid. If it is not possible to reform the illegal or invalid provisions then the illegality or invalidity shall not affect the remaining parts of this Plan, and this Plan shall be construed and enforced as if the illegal or invalid provision had not been included.

(p) **Successor Provision**. Any reference to a statute, rule or regulation, or to a section of a statute, rule or regulation, is a reference to that statute, rule, regulation, or section as amended from time to time, both before and after the Adoption Date and including any successor provisions.

(q) **Governing Law**. This Plan, and (unless otherwise provided in the Award Agreement) all Awards, shall be construed in accordance with and governed by the laws of the State of Delaware, but without regard to its conflict of law provisions. The Committee may provide that any dispute as to any Award shall be presented and determined in such forum as the Committee may specify, including through binding arbitration. Unless otherwise provided in the Award Agreement, recipients of an Award under the Plan are deemed to submit to the exclusive jurisdiction and venue of the federal or state courts of California to resolve any and all issues that may arise out of or relate to the Plan or any related Award Agreement.

SECTION 5. SHARES SUBJECT TO PLAN AND SHARE LIMITS.

(a) **Basic Limitations**. The Common Stock issuable under the Plan shall be authorized but unissued Shares or treasury Shares. Subject to adjustment as provided in Section 11, the maximum aggregate number of Shares that may be issued:

(i) under the Plan shall not exceed 5,441,999 Shares (the "Share Limit"); and

(ii) pursuant to the exercise of ISOs granted under this Plan shall not exceed 5,441,999 Shares (the "ISO Limit").

(b) **Share Utilization**. If Awards are forfeited or are terminated for any reason (including the Company's repurchase of unvested Shares from either an Option that was early exercised or from a Restricted Stock Grant), then the forfeited/terminated/repurchased Shares underlying such Awards shall not be counted toward the Share Limit. If exercised SARs or Stock Units are settled in Shares, then only the number of Shares (if any) actually issued in settlement of such SARs or Stock Units shall be counted against the Share Limit. If a Participant pays the Exercise Price by Net Exercise or by surrendering previously owned Shares (or by stock attestation) and/or, as permitted by the Committee, pays any withholding tax obligation with respect to an Award by Net Exercise or by electing to have Shares withheld or surrendering previously owned Shares (or by stock attestation), the surrendered Shares and the Shares withheld to pay taxes shall not be counted toward the Share Limit. Any Shares that are delivered and any Awards that are granted by, or become obligations of, the Company, as a result of the assumption by the Company of, or in substitution for, outstanding awards previously granted by another entity (as provided in Sections 6(e), 8(f), 9(e) or 10(e)) shall not be counted toward the Share Limit or ISO Limit.

(c) **Dividend Equivalents**. Any dividend equivalents distributed under the Plan shall not be counted against the Share Limit.

SECTION 6. TERMS AND CONDITIONS OF OPTIONS.

(a) **Stock Option Agreement**. Each Award of an Option under the Plan shall be evidenced by a Stock Option Agreement between the Optionee and the Company. Such Option shall be subject to all applicable terms and conditions of the Plan and may be subject to any other terms and conditions that are not inconsistent with the Plan (including without limitation any performance conditions). The provisions of the various Stock Option Agreements entered into under the Plan need not be identical. The Stock Option Agreement shall also specify whether the Option is an ISO and if not specified then the Option shall be an NSO.

(b) **Number of Shares**. Each Stock Option Agreement shall specify the number of Shares that are subject to the Option and shall provide for the adjustment of such number in accordance with Section 11.

(c) **Exercise Price**. An Option's Exercise Price shall be established by the Committee and set forth in a Stock Option Agreement. Except with respect to outstanding stock options being assumed or Options being granted in exchange for cancellation of options granted by another issuer as provided under Section 6(e), the Exercise Price of an Option shall not be less than 100% of the Fair Market Value (110% for 10-Percent Shareholders in the case of ISOs) of a Share on the date of Award.

(d) **Exercisability and Term**. Each Stock Option Agreement shall specify the date when all or any installment of the Option is to become vested and/or exercisable. The Stock Option Agreement shall also specify the term of the Option; provided, however that the term of an Option shall in no event exceed ten (10) years from the date of Award. An ISO that is granted to a 10-Percent Shareholder shall have a maximum term of five (5) years. No Option can be exercised after the expiration date specified in the applicable Stock Option Agreement. A Stock Option Agreement may provide for accelerated exercisability in the event of the Optionee's death, Disability or retirement or other events. A Stock Option Agreement may permit an Optionee to exercise an Option before it is vested (an "early exercise"), subject to the Company's right of repurchase at the original Exercise Price of any Shares acquired under the unvested portion of the Option which right of repurchase shall lapse at the same rate the Option would have vested had there been no early exercise. In no event shall the Company be required to issue fractional Shares upon the exercise of an Option and the Committee may specify a minimum number of Shares that must be purchased in any one Option exercise.

(e) **Modifications or Assumption of Options**. Within the limitations of the Plan, the Committee may modify, extend or assume outstanding Options or may accept the cancellation of outstanding stock options (whether granted by the Company or by another issuer) in return for the grant of new Options for the same or a different number of Shares and at the same or a different Exercise Price. For the avoidance of doubt, the Committee may in its discretion Re-Price outstanding Options provided, however, that the new Exercise Price of a Re-Priced Option shall not be less than the Fair Market Value on the date of the Re-Pricing. No modification of an Option shall, without the consent of the Optionee, impair his or her rights or increase his or her obligations under such Option.

(f) **Assignment or Transfer of Options**. Except as otherwise provided in the applicable Stock Option Agreement and then only to the extent permitted by applicable law, no Option shall be transferable by the Optionee other than by will or by the laws of descent and distribution. Except as otherwise provided in the applicable Stock Option Agreement, an Option may be exercised during the lifetime of the Optionee only by Optionee or by the guardian or legal representative of the Optionee. Except as otherwise provided in the applicable Stock Option Agreement, no Option or interest therein may be subject to a short position or a Call Equivalent Position or Put Equivalent Position, nor may any Option or interest therein be gifted, transferred, assigned, alienated, pledged, hypothecated, attached, sold, or encumbered by the Optionee during his/her lifetime, whether by operation of law or otherwise, or be made subject to execution, attachment or similar process.

(g) **Additional Disclosure**. Solely to the extent that the Company is relying on the exemption from registration under Section 12(g) of the Exchange Act, as provided by Rule 12h-1(f) of the Exchange Act, the Company shall provide (or make available to) Optionees with the additional disclosures required by Rule 12h-1(f)(1)(vi) of the Exchange Act. As a condition to receiving these additional disclosures, an Optionee shall agree in writing to keep the information provided in these additional disclosures confidential. If an Optionee does not agree in writing to keep this information confidential, then the Company shall not be required to provide such Optionee with the additional disclosures required by this Section 6(g).

SECTION 7. PAYMENT FOR OPTION SHARES.

(a) **General Rule**. The entire Exercise Price of Shares issued upon exercise of Options shall be payable in cash (or check) at the time when such Shares are purchased by the Optionee, except as follows and if so provided for in an applicable Stock Option Agreement:

(i) In the case of an ISO granted under the Plan, payment shall be made only pursuant to the express provisions of the applicable Stock Option Agreement. The Stock Option Agreement may specify that payment may be made in any form(s) described in this Section 7.

(ii) In the case of an NSO granted under the Plan, the Committee may in its discretion, at any time accept payment in any form(s) described in this Section 7.

(b) **Surrender of Stock**. To the extent that the Committee makes this Section 7(b) applicable to an Option in a Stock Option Agreement, payment for all or any part of the Exercise Price may be made with Shares which have already been owned by the Optionee for such duration as shall be specified by the Committee. Such Shares shall be valued at their Fair Market Value on the date when the new Shares are purchased under the Plan.

(c) **Cashless Exercise**. To the extent that the Committee makes this Section 7(c) applicable to an Option in a Stock Option Agreement, payment for all or a part of the Exercise Price may be made through Cashless Exercise.

(d) **Net Exercise**. To the extent that the Committee makes this Section 7(d) applicable to an Option in a Stock Option Agreement, payment for all or a part of the Exercise Price may be made through Net Exercise.

(e) **Other Forms of Payment**. To the extent that the Committee makes this Section 7(e) applicable to an Option in a Stock Option Agreement, payment may be made in any other form that is consistent with applicable laws, regulations and rules and approved by the Committee.

SECTION 8. TERMS AND CONDITIONS OF STOCK APPRECIATION RIGHTS.

(a) **SAR Agreement**. Each Award of a SAR under the Plan shall be evidenced by a SAR Agreement between the Participant and the Company. Such SAR shall be subject to all applicable terms of the Plan and may be subject to any other terms that are not inconsistent with the Plan (including without limitation any performance conditions). A SAR Agreement may provide for a maximum limit on the amount of any payout notwithstanding the Fair Market Value on the date of exercise of the SAR. The provisions of the various SAR Agreements entered into under the Plan need not be identical. SARs may be granted in consideration of a reduction in the Participant's other compensation.

(b) **Number of Shares**. Each SAR Agreement shall specify the number of Shares to which the SAR pertains and is subject to adjustment of such number in accordance with Section 11.

(c) **Exercise Price**. Each SAR Agreement shall specify the Exercise Price. A SAR Agreement may specify an Exercise Price that varies in accordance with a predetermined formula while the SAR is outstanding. Except with respect to outstanding stock appreciation rights being assumed or SARs being granted in exchange for cancellation of stock appreciation rights granted by another issuer as provided under Section 8(f), the Exercise Price of a SAR shall not be less than 100% of the Fair Market Value on the date of Award.

(d) **Exercisability and Term**. Each SAR Agreement shall specify the date when all or any installment of the SAR is to become exercisable. The SAR Agreement shall also specify the term of the SAR which shall not exceed ten years from the date of Award. No SAR can be exercised after the expiration date specified in the applicable SAR Agreement. A SAR Agreement may provide for accelerated exercisability in the event of the Participant's death, or Disability or other events. SARs may be awarded in combination with Options or other Awards, and such an Award may provide that the SARs will not be exercisable unless the related Options or other Awards are forfeited. A SAR may be included in an ISO only at the time of Award but may be included in an NSO at the time of Award or at any subsequent time, but not later than six months before the expiration of such NSO. A SAR granted under the Plan may provide that it will be exercisable only in the event of a Change in Control.

(e) **Exercise of SARs**. If, on the date when a SAR expires, the Exercise Price under such SAR is less than the Fair Market Value on such date but any portion of such SAR has not been exercised or surrendered, then such SAR may automatically be deemed to be exercised as of such date with respect to such portion to the extent so provided in the applicable SAR agreement. Upon exercise of a SAR, the Participant (or any person having the right to exercise the SAR after Participant's death) shall receive from the Company (i) Shares, (ii) cash or (iii) any combination of Shares and cash, as the Committee shall determine. The amount of cash and/or the Fair Market Value of Shares received upon exercise of SARs shall, in the aggregate, be equal to the amount by which the Fair Market Value (on the date of surrender) of the Shares subject to the SARs exceeds the Exercise Price of the Shares.

(f) **Modification or Assumption of SARs**. Within the limitations of the Plan, the Committee may modify, extend or assume outstanding SARs or may accept the cancellation of outstanding SARs (including stock appreciation rights granted by another issuer) in return for the grant of new SARs for the same or a different number of Shares and at the same or a different Exercise Price. For the avoidance of doubt, the Committee may in its discretion Re-Price outstanding SARs provided, however, that the new Exercise Price of a Re-Priced SAR shall not be less than the Fair Market Value on the date of the Re-Pricing. No modification of a SAR shall, without the consent of the Participant, impair his or her rights or increase his or her obligations under such SAR.

(g) **Assignment or Transfer of SARs**. Except as otherwise provided in the applicable SAR Agreement and then only to the extent permitted by applicable law, no SAR shall be transferable by the Participant other than by will or by the laws of descent and distribution. Except as otherwise provided in the applicable SAR Agreement, a SAR may be exercised during the lifetime of the Participant only by the Participant or by the guardian or legal representative of the Participant. No SAR or interest therein may be transferred, assigned, alienated, pledged, hypothecated, attached, sold, or encumbered by the Participant during his or her lifetime, whether by operation of law or otherwise, or be made subject to execution, attachment or similar process.

SECTION 9. TERMS AND CONDITIONS FOR RESTRICTED STOCK GRANTS.

(a) **Restricted Stock Grant Agreement**. Each Restricted Stock Grant awarded under the Plan shall be evidenced by a Restricted Stock Grant Agreement between the Participant and the Company. Each Restricted Stock Grant shall be subject to all applicable terms and conditions of the Plan and may be subject to any other terms and conditions that are not inconsistent with the Plan (including without limitation any performance conditions). The provisions of the Restricted Stock Grant Agreements entered into under the Plan need not be identical.

(b) **Number of Shares and Payment**. Each Restricted Stock Grant Agreement shall specify the number of Shares to which the Restricted Stock Grant pertains and is subject to adjustment of such number in accordance with Section 11. Restricted Stock Grants may be issued with or without cash consideration under the Plan.

(c) **Vesting Conditions**. Each Restricted Stock Grant may or may not be subject to vesting. Vesting shall occur, in full or in installments, upon satisfaction of the conditions specified in the Restricted Stock Grant Agreement. A Restricted Stock Grant Agreement may provide for accelerated vesting in the event of the Participant's death, or Disability or other events.

(d) **Voting and Dividend Rights**. The holder of a Restricted Stock Grant (irrespective of whether the Shares subject to the Restricted Stock Grant are vested or unvested) awarded under the Plan shall have the same voting, dividend and other rights

as the Company's other stockholders. However, any dividends received on Shares that are unvested (whether such dividends are in the form of cash or Shares) may be subject to the same vesting conditions and restrictions as the Restricted Stock Grant with respect to which the dividends were paid. Such additional Shares issued as dividends that are subject to the Restricted Stock Grant shall not reduce the number of Shares available for issuance under Section 5.

(e) **Modification or Assumption of Restricted Stock Grants**. Within the limitations of the Plan, the Committee may modify or assume outstanding Restricted Stock Grants or may accept the cancellation of outstanding Restricted Stock Grants (including stock granted by another issuer) in return for the grant of new Restricted Stock Grants for the same or a different number of Shares. No modification of a Restricted Stock Grant shall, without the consent of the Participant, impair his or her rights or increase his or her obligations under such Restricted Stock Grant.

(f) **Assignment or Transfer of Restricted Stock Grants**. Except as provided in Section 14, or in a Restricted Stock Grant Agreement, or as required by applicable law, a Restricted Stock Grant awarded under the Plan shall not be assigned, attached, garnished, optioned, transferred or made subject to any creditor's process, whether voluntarily, involuntarily or by operation of law. Any act in violation of this Section 9(f) shall be void. However, this Section 9(f) shall not preclude a Participant from designating a beneficiary pursuant to Section 4(d) nor shall it preclude a transfer of Restricted Stock Grant Awards by will or pursuant to Section 4(d).

SECTION 10. TERMS AND CONDITIONS FOR STOCK UNITS.

(a) **Stock Unit Agreement**. Each grant of Stock Units under the Plan shall be evidenced by a Stock Unit Agreement between the Participant and the Company. Such Stock Units shall be subject to all applicable terms of the Plan and may be subject to any other terms that are not inconsistent with the Plan (including without limitation any performance conditions). The provisions of the various Stock Unit Agreements entered into under the Plan need not be identical. Stock Units may be granted in consideration of a reduction in the Participant's other compensation.

(b) **Number of Shares and Payment**. Each Stock Unit Agreement shall specify the number of Shares to which the Stock Unit Award pertains and is subject to adjustment of such number in accordance with Section 11. To the extent that an Award is granted in the form of Stock Units, no cash consideration shall be required of the Award recipients.

(c) **Vesting Conditions**. Each Award of Stock Units may or may not be subject to vesting. Vesting shall occur, in full or in installments, upon satisfaction of the conditions specified in the Stock Unit Agreement. A Stock Unit Agreement may provide for accelerated vesting in the event of the Participant's death, or Disability or other events.

(d) **Voting and Dividend Rights**. The holders of Stock Units shall have no voting rights. Prior to settlement or forfeiture, any Stock Unit awarded under the Plan may, at the Committee's discretion, carry with it a right to dividend equivalents. Such right

entitles the holder to be credited with an amount equal to all cash or Common Stock dividends paid on one Share while the Stock Unit is outstanding. Dividend equivalents may be converted into additional Stock Units. Settlement of dividend equivalents may be made in the form of cash, in the form of Shares, or in a combination of both. Prior to vesting of the Stock Units, any dividend equivalents accrued on such unvested Stock Units may be subject to the same vesting conditions and restrictions as the Stock Units to which they attach.

(e) **Modification or Assumption of Stock Units**. Within the limitations of the Plan, the Committee may modify or assume outstanding Stock Units or may accept the cancellation of outstanding Stock Units (including stock units granted by another issuer) in return for the grant of new Stock Units for the same or a different number of Shares. No modification of a Stock Unit shall, without the consent of the Participant, impair his or her rights or increase his or her obligations under such Stock Unit.

(f) **Assignment or Transfer of Stock Units**. Except as provided in Section 14, or in a Stock Unit Agreement, or as required by applicable law, Stock Units shall not be assigned, attached, garnished, optioned, transferred or made subject to any creditor's process, whether voluntarily, involuntarily or by operation of law. Any act in violation of this Section 10(f) shall be void. However, this Section 10(f) shall not preclude a Participant from designating a beneficiary pursuant to Section 4(d) nor shall it preclude a transfer of Stock Units pursuant to Section 4(d).

(g) **Form and Time of Settlement of Stock Units**. Settlement of vested Stock Units may be made in the form of (a) cash, (b) Shares or (c) any combination of both, as determined by the Committee. The actual number of Stock Units eligible for settlement may be larger or smaller than the number included in the original Award. Methods of converting Stock Units into cash may include (without limitation) a method based on the average Fair Market Value of Shares over a series of trading days. Except as otherwise provided in a Stock Unit Agreement or a timely completed deferral election, vested Stock Units shall be settled within thirty days after vesting. The distribution may occur or commence when all vesting conditions applicable to the Stock Units have been satisfied or have lapsed, or it may be deferred, in accordance with applicable law, to a later specified date. The amount of a deferred distribution may be increased by an interest factor or by dividend equivalents. Until an Award of Stock Units is settled, the number of such Stock Units shall be subject to adjustment pursuant to Section 11.

(h) **Creditors' Rights**. A holder of Stock Units shall have no rights other than those of a general creditor of the Company. Stock Units represent an unfunded and unsecured obligation of the Company, subject to the terms and conditions of the applicable Stock Unit Agreement.

(i) **Additional Disclosure**. Solely to the extent that the Company is relying on the exemption from registration under Section 12(g) of the Exchange Act, as provided by Rule 12h-1(f) of the Exchange Act, the Company shall provide (or make available to) Participants holding Stock Units with the additional disclosures required by Rule 12h-1(f)(1)(vi) of the Exchange Act. As a condition to receiving these additional disclosures,

any such Participant shall agree in writing to keep the information provided in these additional disclosures confidential. If any such Participant does not agree in writing to keep this information confidential, then the Company shall not be required to provide such Participant with the additional disclosures required by this Section 10(i).

SECTION 11. ADJUSTMENTS.

(a) **Adjustments**. In the event of a subdivision of the outstanding Shares, a declaration of a dividend payable in Shares, a declaration of a dividend payable in a form other than Shares in an amount that has a material effect on the price of Shares, a combination or consolidation of the outstanding Shares (by reclassification or otherwise) into a lesser number of Shares, a stock split, a reverse stock split, a reclassification or other distribution of the Shares without the receipt of consideration by the Company, of or on the Common Stock, a recapitalization, a combination, a spin-off or a similar occurrence, the Committee shall make equitable and proportionate adjustments to:

(i) the Share Limit and ISO Limit specified in Section 5(a);

(ii) the number and kind of securities available for Awards (and which can be issued as ISOs) under Section 5;

(iii) the number and kind of securities covered by each outstanding Award;

(iv) the Exercise Price under each outstanding Option and SAR; and

(v) the number and kind of outstanding securities issued under the Plan.

(b) **Participant Rights**. Except as provided in this Section 11, a Participant shall have no rights by reason of any issue by the Company of stock of any class or securities convertible into stock of any class, any subdivision or consolidation of shares of stock of any class, the payment of any stock dividend or any other increase or decrease in the number of shares of stock of any class. If by reason of an adjustment pursuant to this Section 11, a Participant's Award covers additional or different shares of stock or securities, then such additional or different shares and the Award in respect thereof shall be subject to all of the terms, conditions and restrictions which were applicable to the Award and the Shares subject to the Award prior to such adjustment.

(c) **Fractional Shares**. Any adjustment of Shares pursuant to this Section 11 shall be rounded down to the nearest whole number of Shares. Under no circumstances shall the Company be required to authorize or issue fractional shares. To the extent permitted by applicable law, no consideration shall be provided as a result of any fractional shares not being issued or authorized.

SECTION 12. EFFECT OF A CHANGE IN CONTROL.

(a) **Merger or Reorganization**. In the event that there is a Change in Control and/or the Company is a party to a merger or acquisition or reorganization or similar transaction, outstanding Awards shall be subject to the merger agreement or other applicable transaction agreement. Such agreement may provide, without limitation, that subject to the consummation of the applicable transaction, for the assumption (or substitution) of outstanding Awards by the surviving corporation or its parent, for their continuation by the Company (if the Company is a surviving corporation), for accelerated vesting or for their cancellation with or without consideration, in all cases without the consent of the Participant.

(b) **Acceleration of Vesting**. In the event that a Change in Control occurs and there is no assumption, substitution or continuation of Awards pursuant to Section 12(a), the Committee in its discretion may provide that all Awards shall vest and become exercisable as of immediately before such Change in Control. For avoidance of doubt, "substitution" includes, without limitation, an Award being replaced by a cash award that provides an equivalent intrinsic value (wherein intrinsic value equals the difference between the market value of a share and any exercise price). The Committee may also in its discretion include in an Award agreement a requirement that unless Section 280G Approval has been obtained, no acceleration of vesting shall occur with respect to an Award to the extent that such acceleration would, after taking into account any other payments in the nature of compensation to which the Participant would have a right to receive from the Company and any other person contingent upon the occurrence of such Change in Control, result in a "parachute payment" as defined under Code Section 280G.

SECTION 13. LIMITATIONS ON RIGHTS.

(a) **Retention Rights**. Neither the Plan nor any Award granted under the Plan shall be deemed to give any individual a right to remain in Service as an Employee, Consultant, or Non-Employee Director of the Company, a Parent, a Subsidiary or an Affiliate or to receive any future Awards under the Plan. The Company and its Parents and Subsidiaries and Affiliates reserve the right to terminate the Service of any person at any time, and for any reason, subject to applicable laws, the Company's Certificate of Incorporation and Bylaws and a written employment agreement (if any).

(b) **Regulatory Requirements**. Any other provision of the Plan notwithstanding, the obligation of the Company to issue Shares or other securities under the Plan shall be subject to all applicable laws, rules and regulations and such approval by any regulatory body as may be required. The Company reserves the right to restrict, in whole or in part, the delivery of Shares or other securities pursuant to any Award prior to the satisfaction of all legal requirements relating to the issuance of such Shares or other securities, to their registration, qualification or listing or to an exemption from registration, qualification or listing.

(c) **Dissolution**. To the extent not previously exercised or settled, all Options, SARs, Stock Units and unvested Restricted Stock Grants shall terminate immediately prior to the dissolution or liquidation of the Company and shall be forfeited to the Company without consideration (except for repayment of any amounts a Participant had paid to the Company to acquire unvested Shares underlying the forfeited Awards).

SECTION 14. WITHHOLDING TAXES.

(a) **General**. A Participant shall make arrangements satisfactory to the Company for the satisfaction of any withholding tax obligations that arise in connection with his or her Award. The Company shall not be required to issue any Shares or make any cash payment under the Plan until such obligations are satisfied and the Company shall, to the extent permitted by law, have the right to deduct any such taxes from any payment of any kind otherwise due to the Participant.

(b) **Share Withholding**. The Committee in its discretion may permit or require a Participant to satisfy all or part of his or her withholding tax obligations by having the Company withhold all or a portion of any Shares that otherwise would be issued to him or her or by surrendering all or a portion of any Shares that he or she previously acquired (or by stock attestation). Such Shares shall be valued based on the value of the actual trade or, if there is none, the Fair Market Value as of the previous day. Any payment of taxes by assigning Shares to the Company may be subject to restrictions, including, but not limited to, any restrictions required by rules of the SEC. The Committee may also, in its discretion, permit or require a Participant to satisfy withholding tax obligations related to an Award through a sale of Shares underlying the Award or, in the case of Options, through Net Exercise or Cashless Exercise. The number of Shares that are withheld from an Award pursuant to this section may also be limited by the Committee, to the extent necessary, to avoid liability-classification of the Award (or other adverse accounting treatment) under applicable financial accounting rules including without limitation by requiring that no amount may be withheld which is in excess of minimum statutory withholding rates. The Committee, in its discretion, may permit other forms of payment of applicable tax withholding.

SECTION 15. DURATION AND AMENDMENTS.

(a) **Term of the Plan**. The Plan, as set forth herein, is effective on the Adoption Date provided, however, that the Plan is subject to the approval of the Company's stockholders within one year of the Adoption Date. If the Stockholder Approval Date does not occur before the first anniversary of the Adoption Date, then the Plan shall terminate as of the first anniversary of the Adoption Date and any Awards granted under the Plan shall also immediately terminate without consideration to any Award holder. If the stockholders timely approve the Plan, then the Plan shall terminate on the day before the tenth anniversary of the Adoption Date and may be terminated on any earlier date pursuant to this Section 15. This Plan will not in any way affect outstanding awards that were issued under any other Company equity compensation plans.

(b) **Right to Amend or Terminate the Plan**. The Board may amend or terminate the Plan at any time and for any reason. No Awards shall be granted under the Plan after the Plan's termination. An amendment of the Plan shall be subject to the approval of the Company's stockholders only to the extent required by applicable laws, regulations or rules. In addition, no such amendment or termination (or amendment of an executed Award Agreement) shall be made which would materially impair the rights of any Participant, without such Participant's written consent, under any then-outstanding Award. In the event of any conflict in terms between the Plan and any Award agreement, the terms of the Plan shall prevail and govern.

SECTION 16. EXECUTION.

To record the adoption of the Plan by the Board, the Company has caused its duly authorized Officer to execute this Plan on behalf of the Company.

PINTA BIOTHERAPEUTICS, INC.

By: /s/ Isaac Ciechanover

Name: Isaac Ciechanover

Title: President and CEO

Exhibit 10.6

SANTA MARIA BIOTHERAPEUTICS, INC.

2012 EQUITY INCENTIVE PLAN

EFFECTIVE AS OF NOVEMBER 26, 2012

SANTA MARIA BIOTHERAPEUTICS, INC.
2012 EQUITY INCENTIVE PLAN

EFFECTIVE AS OF NOVEMBER 26, 2012

SECTION 1. INTRODUCTION.

The Company's Board of Directors adopted the Santa Maria Biotherapeutics, Inc. 2012 Equity Incentive Plan effective as of the Adoption Date subject to obtaining Company stockholder approval as provided in Section 15 below. Awards granted under the Plan prior to the Stockholder Approval Date may not be exercised or Shares released to any Participant until such stockholder approval is obtained.

The purpose of the Plan is to promote the long-term success of the Company and the creation of stockholder value by offering Key Employees an opportunity to acquire a proprietary interest in the success of the Company, or to increase such interest, and to encourage such Key Employees to continue to provide services to the Company and to attract new individuals with outstanding qualifications.

The Plan seeks to achieve this purpose by providing for Awards in the form of Options (which may constitute Incentive Stock Options or Nonstatutory Stock Options), Stock Appreciation Rights, Restricted Stock Grants and/or Stock Units.

Capitalized terms shall have the meaning provided in Section 2 unless otherwise provided in this Plan or any related Stock Option Agreement, SAR Agreement, Restricted Stock Grant Agreement or Stock Unit Agreement.

SECTION 2. DEFINITIONS. If a Participant's employment agreement or Award Agreement (or other written agreement executed by and between Participant and the Company) expressly includes defined terms that expressly are different from and/or conflict with the defined terms contained in this Plan then the defined terms contained in the employment agreement or Award Agreement (or other written agreement executed by and between Participant and the Company) shall govern and shall supersede the definitions provided in this Plan.

(a) "**Adoption Date**" means November 26, 2012.

(b) "**Affiliate**" means any entity other than a Subsidiary, if the Company and/or one or more Subsidiaries own not less than 50% of such entity.

(c) **"Award"** means any award of an Option, SAR, Restricted Stock Grant or Stock Unit under the Plan.

(d) "**Board**" means the Board of Directors of the Company, as constituted from time to time.

(e) "**California Participant"** means a Participant whose Award was issued in reliance on Section 25102(o) of the California Corporations Code.

(f) "**Call Equivalent Position"** means the term "call equivalent position" as defined under Rule 16a-1(b) of the Exchange Act.

(g) "**Cashless Exercise"** means, to the extent that a Stock Option Agreement so provides and as permitted by applicable law and in accordance with any procedures established by the Committee, an arrangement whereby payment of some or all of the aggregate Exercise Price may be made all or in part by delivery of an irrevocable direction to a securities broker to sell Shares and to deliver all or part of the sale proceeds to the Company. Cashless Exercise may also be utilized to satisfy an Option's tax withholding obligations as provided in Section 14(b).

(h) **"Cause**" means, with respect to a Participant, the occurrence of any of the following: (i) a conviction of a Participant for a felony crime or the failure of a Participant to contest prosecution for a felony crime, or (ii) a Participant's misconduct, fraud, disloyalty or dishonesty (as such terms may be defined by the Committee in its sole discretion), or (iii) any unauthorized use or disclosure of confidential information or trade secrets by a Participant, or (iv) a Participant's negligence, malfeasance, breach of fiduciary duties, neglect of duties, or (v) any material violation by a Participant of a written Company or Subsidiary or Affiliate policy or any material breach by a Participant of a written agreement with the Company or Subsidiary or Affiliate, or (vi) any other act or omission by a Participant that, in the opinion of the Committee, could reasonably be expected to adversely affect the Company's or a Subsidiary's or an Affiliate's business, financial condition, prospects and/or reputation. In each of the foregoing subclauses (i) through (vi), whether or not a "Cause" event has occurred will be determined by the Committee in its sole discretion or, in the case of Participants who are directors or Officers or Section 16 Persons, the Board, each of whose determination shall be final, conclusive and binding. A Participant's Service shall be deemed to have terminated for Cause if, after the Participant's Service has terminated, facts and circumstances are discovered that would have justified a termination for Cause, including, without limitation, violation of material Company policies or breach of noncompetition, confidentiality or other restrictive covenants that may apply to the Participant.

(i) **"Change in Control"** means the occurrence of any of the following:

(i) the merger, consolidation, recapitalization, or reorganization of Company, other than a merger, consolidation, recapitalization or reorganization which would result in the voting securities of Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity) more than fifty percent (50%) of the total voting power represented by the voting securities of Company or such surviving entity outstanding immediately after such merger, consolidation, recapitalization or reorganization;

(ii) the sale or disposition by Company's stockholders of more than fifty percent (50%) of the total voting securities of Company;

(iii) a complete liquidation or dissolution of the Company;

(iv) the sale or disposition by Company of all or substantially all of its assets; or

(v) the exclusive licensing to a third party of all or substantially all of Company's intellectual property.

Notwithstanding the foregoing, the following transactions shall not constitute a Change in Control: (i) a transaction the sole purpose of which is to change the state of the Company's incorporation or to create a holding company that will be owned in substantially the same proportions by the persons who held the Company's securities immediately before such transaction; (ii) a transaction or series of related transactions involving the sale of securities by the Company primarily for financing purposes; (iii) a merger or consolidation involving only the Company and one or more companies under common management control with the Company; or (iv) an IPO. If the timing of payments provided under an Award agreement is based on or triggered by a Change in Control then, to extent necessary to avoid violating Code Section 409A, a Change in Control must also constitute a "change in control event" (as defined under Code Section 409A regulations and applicable guidance).

(j) "**Code**" means the Internal Revenue Code of 1986, as amended, and the regulations and interpretations promulgated thereunder.

(k) "**Committee**" means a committee consisting of members of the Board that is appointed by the Board (as described in Section 3) to administer the Plan. If no Committee has been appointed, the full Board shall constitute the Committee.

(l) "**Common Stock**" means the Company's common stock, par value $0.0001 per Share, and any other securities into which such shares are changed, for which such shares are exchanged or which may be issued in respect thereof.

(m) "**Company**" means Santa Maria Biotherapeutics, Inc., a Delaware corporation.

(n) "**Consultant**" means an individual (or entity) which performs bona fide services to the Company, a Parent, a Subsidiary or an Affiliate other than as an Employee or Non-Employee Director.

(o) "**Disability**" means that the Participant is classified as disabled under a long-term disability policy of the Company or, if no such policy applies, the Participant is unable to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment which can be expected to result in death or which has lasted or can be expected to last for a continuous period of not less than 12 months. The Disability of a Key Employee shall be determined solely by the Committee on the basis of such medical evidence as the Committee deems warranted under the circumstances.

(p) "**Employee**" means any individual who is a common-law employee of the Company, or of a Parent, or of a Subsidiary or of an Affiliate.

(q) "**Exchange Act**" means the Securities Exchange Act of 1934, as amended.

(r) "**Exercise Price**" means, in the case of an Option, the amount for which a Share may be purchased upon exercise of such Option, as specified in the applicable Stock Option Agreement. "Exercise Price," in the case of a SAR, means an amount, as specified in the applicable SAR Agreement, which is subtracted from the Fair Market Value in determining the amount payable to a Participant upon exercise of such SAR.

(s) "**Fair Market Value**" means the market price of a Share, determined by the Committee as follows:

(i) If the Shares were traded on a stock exchange (such as the New York Stock Exchange, NYSE Amex, the NASDAQ Global Market or NASDAQ Capital Market) at the time of determination, then the Fair Market Value shall be equal to the regular session closing price for such stock as reported by such exchange (or the exchange or market with the greatest volume of trading in the Shares) on the date of determination, or if there were no sales on such date, on the last date preceding such date on which a closing price was reported;

(ii) If the Shares were traded on the OTC Bulletin Board at the time of determination, then the Fair Market Value shall be equal to the last-sale price reported by the OTC Bulletin Board for such date, or if there were no sales on such date, on the last date preceding such date on which a sale was reported; and

(iii) If neither of the foregoing provisions is applicable, then the Fair Market Value shall be determined by the Committee in good faith using a reasonable application of a reasonable valuation method as the Committee deems appropriate.

Whenever possible, the determination of Fair Market Value by the Committee shall be based on the prices reported by the applicable exchange or the OTC Bulletin Board, as applicable, or a nationally recognized publisher of stock prices or quotations (including an electronic on-line publication). Such determination shall be conclusive and binding on all persons.

(t) "**Incentive Stock Option**" or "**ISO**" means an incentive stock option described in Code section 422.

(u) "**IPO**" means an initial public offering by the Company of its equity securities pursuant to an effective registration statement filed with the SEC.

(v) "**Key Employee**" means an Employee, Non-Employee Director or Consultant who has been selected by the Committee to receive an Award under the Plan.

(w) "**Net Exercise**" means, to the extent that a Stock Option Agreement so provides and as permitted by applicable law, an arrangement pursuant to which the number of Shares issued to the Optionee in connection with the Optionee's exercise of the Option will be reduced by the Company's retention of a portion of such Shares. Upon such a net exercise of an Option, the Optionee will receive a net number of Shares that is equal to (i) the number of Shares as to which the Option is being exercised minus (ii) the quotient (rounded down to the nearest whole number) of the aggregate Exercise Price of the Shares being exercised divided by the Fair Market Value of a Share on the Option exercise date. The number of Shares covered by clause (ii) will be retained by the Company and not delivered to the Optionee. No fractional Shares will be created as a result of a Net Exercise and the Optionee must contemporaneously pay for any portion of the aggregate Exercise Price that is not covered by the Shares retained by the Company under clause (ii). The number of Shares delivered to the Optionee may be further reduced if Net Exercise is utilized under Section 14(b) to satisfy applicable tax withholding obligations.

(x) "**Non-Employee Director**" means a member of the Board who is not an Employee.

(y) "**Nonstatutory Stock Option**" or "**NSO**" means a stock option that is not an ISO.

(z) "**Officer**" means an individual who is an officer of the Company within the meaning of Rule 16a-1(f) of the Exchange Act.

(aa) "**Option**" means an ISO or NSO granted under the Plan entitling the Optionee to purchase Shares under the Plan as provided in Section 6.

(bb) "**Optionee**" means an individual, estate or other entity that holds an Option.

(cc) "**Parent**" means any corporation (other than the Company) in an unbroken chain of corporations ending with the Company, if each of the corporations other than the Company owns stock possessing fifty percent (50%) or more of the total combined voting power of all classes of stock in one of the other corporations in such chain. A corporation that attains the status of a Parent on a date after the Adoption Date shall be considered a Parent commencing as of such date.

(dd) **"Participant"** means an individual or estate or other entity that holds an Award.

(ee) "**Plan**" means this Santa Maria Biotherapeutics, Inc. 2012 Equity Incentive Plan as it may be amended from time to time.

(ff) "**Put Equivalent Position"** means the term "put equivalent position" as defined under Rule 16a-1(h) of the Exchange Act.

(gg) "**Re-Price**" means that the Company has lowered or reduced the Exercise Price of outstanding Options and/or outstanding SARs for any Participant(s) in a manner described by SEC Regulation S-K Item 402(d)(2)(viii) (or as described in any successor provision(s) or definition(s)).

(hh) "**Restricted Stock Grant**" means Shares awarded under the Plan as provided in Section 9.

(ii) **"Restricted Stock Grant Agreement"** means the agreement described in Section 9 evidencing each Award of a Restricted Stock Grant.

(jj) "**SAR Agreement"** means the agreement described in Section 8 evidencing each Award of a Stock Appreciation Right.

(kk) "**SEC"** means the Securities and Exchange Commission.

(ll) "**Section 16 Persons"** means those Officers or directors or Non-Employee Directors or other persons who are subject to Section 16 of the Exchange Act.

(mm) "**Section 280G Approval"** means the separate approval by stockholders owning more than 75% of the voting power of all outstanding stock of the Company entitled to vote immediately before a Change in Control which approval shall be obtained in compliance with the requirements of Code Section 280G(b)(5)(B), as amended, including any successor thereof, and the regulations promulgated thereunder, as determined by the Committee in its sole discretion.

(nn) "**Securities Act**" means the Securities Act of 1933, as amended.

(oo) **"Separation From Service"** means a Participant's separation from service with the Company within the meaning of Code Section 409A.

(pp) "**Service**" means service as an Employee, Non-Employee Director or Consultant. Service will be deemed terminated as soon as the entity to which Service is being provided is no longer either (i) the Company, (ii) a Parent, (iii) a Subsidiary or (iv) an Affiliate. The Committee determines when Service commences and when Service terminates. The Committee may determine whether any Company transaction, such as a sale or spin-off of a division or subsidiary that employs a Participant, shall be deemed to result in termination of Service for purposes of any affected Awards, and the Committee's decision shall be final, conclusive and binding.

(qq) "**Share**" means one share of Common Stock.

(rr) **"Stock Appreciation Right or SAR"** means a stock appreciation right awarded under the Plan as provided in Section 8.

(ss) "**Stock Option Agreement**" means the agreement described in Section 6 evidencing each Award of an Option.

(tt) "**Stock Unit**" means a bookkeeping entry representing the equivalent of one Share awarded under the Plan as provided in Section 10.

(uu) "**Stock Unit Agreement**" means the agreement described in Section 10 evidencing each Award of Stock Units.

(vv) "**Stockholder Approval Date**" means the date that the Company's stockholders approve this Plan.

(ww) "**Stockholders Agreement**" means any applicable agreement between the Company's stockholders and/or investors that provides certain rights and obligations for stockholders.

(xx) "**Subsidiary**" means any corporation (other than the Company) in an unbroken chain of corporations beginning with the Company, if each of the corporations other than the last corporation in the unbroken chain owns stock possessing fifty percent (50%) or more of the total combined voting power of all classes of stock in one of the other corporations in such chain. A corporation that attains the status of a Subsidiary on a date after the Adoption Date shall be considered a Subsidiary commencing as of such date.

(yy) "**Termination Date**" means the date on which a Participant's Service terminates as determined by the Committee.

(zz) "**10-Percent Shareholder**" means an individual who owns more than ten percent (10%) of the total combined voting power of all classes of outstanding stock of the Company, its Parent or any of its Subsidiaries. In determining stock ownership, the attribution rules of section 424(d) of the Code shall be applied.

SECTION 3. ADMINISTRATION.

(a) **Committee Composition**. A Committee appointed by the Board shall administer the Plan. The Board shall designate one of the members of the Committee as chairperson. Members of the Committee shall serve for such period of time as the Board may determine and shall be subject to removal by the Board at any time. The Board may also at any time terminate the functions of the Committee and reassume all powers and authority previously delegated to the Committee.

Effective with the Shares being publicly traded or the Company being subject to the reporting requirements of the Exchange Act, with respect to Awards to Section 16 Persons, the Committee shall consist either (i) solely of two or more individuals who satisfy the requirements of Rule 16b-3 (or its successor) under the Exchange Act or (ii) of the full Board. The Board may also appoint one or more separate committees of the Board, each composed of directors of the Company who need not qualify under Rule 16b-3, who may administer the Plan with respect to Key Employees who are not Section 16 Persons, may grant Awards under the Plan to such Key Employees and may determine all terms of such Awards. To the extent permitted by applicable law, the Board may also appoint a committee, composed of one or more officers of the Company, that may authorize Awards to Employees (who are not Section 16 Persons) within parameters specified by the Board and consistent with any limitations imposed by applicable law.

(b) **Authority of the Committee**. Subject to the provisions of the Plan, the Committee shall have full authority and discretion to take any actions it deems necessary or advisable for the administration of the Plan. Such actions shall include without limitation:

(i) selecting Key Employees who are to receive Awards under the Plan;

(ii) determining the type, number, vesting requirements, performance conditions (if any) and their degree of satisfaction, and other features and conditions of such Awards and amending such Awards;

(iii) correcting any defect, supplying any omission, or reconciling or clarifying any inconsistency in the Plan or any Award agreement;

(iv) accelerating the vesting, or extending the post-termination exercise term, or waiving restrictions, of Awards at any time and under such terms and conditions as it deems appropriate;

(v) Re-Pricing outstanding Options or SARs, without the approval of Company stockholders;

(vi) interpreting the Plan and any Award agreements;

(vii) making all other decisions relating to the operation of the Plan; and

(viii) granting Awards to Key Employees who are foreign nationals on such terms and conditions different from those specified in the Plan, which may be necessary or desirable to foster and promote achievement of the purposes of the Plan, and adopting such modifications, procedures, and/or subplans (with any such subplans attached as appendices to the Plan) and the like as may be necessary or desirable to comply with provisions of the laws or regulations of other countries or jurisdictions to ensure the viability of the benefits from Awards granted to Participants employed in such countries or jurisdictions, or to meet the requirements that permit the Plan to operate in a qualified or tax efficient manner, and/or comply with applicable foreign laws or regulations.

The Committee may adopt such rules or guidelines, as it deems appropriate to implement the Plan. The Committee's determinations under the Plan shall be final, conclusive and binding on all persons. The Committee's decisions and determinations need not be uniform and may be made selectively among Participants in the Committee's sole discretion. The Committee's decisions and determinations will be afforded the maximum deference provided by applicable law.

(c) **Indemnification**. To the maximum extent permitted by applicable law, each member of the Committee, or of the Board, or any persons (including without limitation Employees and Officers) who are delegated by the Board or Committee to perform administrative functions in connection with the Plan, shall be indemnified and held harmless by the Company against and from (i) any loss, cost, liability, or expense that

may be imposed upon or reasonably incurred by him or her in connection with or resulting from any claim, action, suit, or proceeding to which he or she may be a party or in which he or she may be involved by reason of any action taken or failure to act under the Plan or any Award agreement, and (ii) from any and all amounts paid by him or her in settlement thereof, with the Company's approval, or paid by him or her in satisfaction of any judgment in any such claim, action, suit, or proceeding against him or her, provided he or she shall give the Company an opportunity, at its own expense, to handle and defend the same before he or she undertakes to handle and defend it on his or her own behalf. The foregoing right of indemnification shall not be exclusive of any other rights of indemnification to which such persons may be entitled under the Company's Certificate of Incorporation or Bylaws, by contract, as a matter of law, or otherwise, or under any power that the Company may have to indemnify them or hold them harmless.

SECTION 4. GENERAL.

(a) **Eligibility**. Only Employees, Non-Employee Directors and Consultants shall be eligible for designation as Key Employees by the Committee.

(b) **Incentive Stock Options**. Only Key Employees who are common-law employees of the Company, a Parent or a Subsidiary shall be eligible for the grant of ISOs. In addition, a Key Employee who is a 10-Percent Shareholder shall not be eligible for the grant of an ISO unless the requirements set forth in section 422(c)(5) of the Code are satisfied. If and to the extent that any Shares are issued under a portion of any Option that exceeds the $100,000 limitation of Section 422 of the Code, such Shares shall not be treated as issued under an ISO notwithstanding any designation otherwise. Certain decisions, amendments, interpretations and actions by the Committee and certain actions by a Participant may cause an Option to cease to qualify as an ISO pursuant to the Code and by accepting an Option the Participant agrees in advance to such disqualifying action taken by either the Participant, the Committee or the Company.

(c) **Restrictions on Shares.** Any Shares issued pursuant to an Award shall be subject to such Company policies, rights of repurchase, rights of first refusal and other transfer restrictions as the Committee may determine. Such restrictions shall apply in addition to any restrictions that may apply to holders of Shares generally and shall also comply to the extent necessary with applicable law. In no event shall the Company be required to issue fractional Shares under this Plan.

(d) **Beneficiaries.** A Participant may designate one or more beneficiaries with respect to an Award by timely filing the prescribed form with the Company. A beneficiary designation may be changed by filing the prescribed form with the Company at any time before the Participant's death. If no beneficiary was designated or if no designated beneficiary survives the Participant, then after a Participant's death any vested Award(s) shall be transferred or distributed to the Participant's estate.

(e) **Performance Conditions.** The Committee may, in its discretion, include performance conditions in any Award.

(f) **Stockholder Rights.** A Participant, or a transferee of a Participant, shall have no rights as a stockholder (including without limitation voting rights or dividend or distribution rights) with respect to any Common Stock covered by an Award until such person becomes entitled to receive such Common Stock, has satisfied any applicable withholding or tax obligations relating to the Award and the Common Stock has been issued to the Participant. No adjustment shall be made for cash or stock dividends or other rights for which the record date is prior to the date when such Common Stock is issued, except as expressly provided in Section 11. The issuance of an Award may be subject to and conditioned upon the Participant's agreement to become a party to a Stockholders Agreement and be bound by its terms.

(g) **Buyout of Awards.** The Committee may at any time offer to buy out, for a payment in cash or cash equivalents (including without limitation Shares issued at Fair Market Value that may or may not be issued under this Plan), an Award previously granted based upon such terms and conditions as the Committee shall establish.

(h) **Termination of Service.** Unless the applicable Award agreement or employment agreement provides otherwise (and in such case, the Award or employment agreement shall govern as to the consequences of a termination of Service for such Awards subject to Section 4(i)), the following rules shall govern the vesting, exercisability and term of outstanding Awards held by a Participant in the event of termination of such Participant's Service (in all cases subject to the term of the Option or SAR as applicable):

(i) if the Service of a Participant is terminated for Cause, then all Options, SARs, unvested portions of Stock Units and unvested portions of Restricted Stock Grants shall terminate and be forfeited immediately without consideration as of the Termination Date (except for repayment of any amounts the Participant had paid to the Company to acquire unvested Shares underlying the forfeited Awards);

(ii) if the Service of Participant is terminated due to the Participant's death or Disability, then the vested portion of his/her then-outstanding Options/SARs may be exercised by such Participant or his or her personal representative within six months after the Termination Date and all unvested portions of any outstanding Awards shall be forfeited without consideration as of the Termination Date (except for repayment of any amounts the Participant had paid to the Company to acquire unvested Shares underlying the forfeited Awards); and

(iii) if the Service of Participant is terminated for any reason other than for Cause or other than due to death or Disability, then the vested portion of his/her then-outstanding Options/SARs may be exercised by such Participant within three months after the Termination Date and all unvested portions of any outstanding Awards shall be forfeited without consideration as of the Termination Date (except for repayment of any amounts the Participant had paid to the Company to acquire unvested Shares underlying the forfeited Awards).

(i) **California Participants.** Awards to California Participants shall also be subject to the following terms regarding the time period to exercise vested Options or SARs after termination of Service. These additional terms shall apply until such time that the Shares are publicly traded and/or the Company is subject to the reporting requirements of the Exchange Act: In the event of termination of a Participant's Service, (i) if such termination was for reasons other than death or Disability or Cause, the Participant shall have at least 30 days after the date of such termination to exercise any of his/her vested outstanding Options or SARs (but in no event later than the expiration of the term of such Options or SARs established by the Committee as of the Award date) or (ii) if such termination was due to death or Disability, the Participant shall have at least six months after the date of such termination to exercise any of his/her vested outstanding Options or SARs (but in no event later than the expiration of the term of such Options or SARs established by the Committee as of the Award date).

(j) **Suspension or Termination of Awards.** If at any time (including after a notice of exercise has been delivered) the Committee (or the Board), reasonably believes that a Participant has committed an act of Cause (which includes a failure to act), the Committee (or Board) may suspend the Participant's right to exercise any Option or SAR (or vesting of Restricted Stock Grants or Stock Units) pending a determination of whether there was in fact an act of Cause. If the Committee (or the Board) determines a Participant has committed an act of Cause, neither the Participant nor his or her estate shall be entitled to exercise any outstanding Option or SAR whatsoever and all of Participant's outstanding Awards shall then terminate without consideration. Any determination by the Committee (or the Board) with respect to the foregoing shall be final, conclusive and binding on all interested parties.

(k) **Code Section 409A.** Notwithstanding anything in the Plan to the contrary, the Plan and Awards granted hereunder are intended to comply with the requirements of Code Section 409A and shall be interpreted in a manner consistent with such intention. In the event that any provision of the Plan or an Award agreement is determined by the Committee to not comply with the applicable requirements of Code Section 409A or the Treasury Regulations or other guidance issued thereunder, the Committee shall have the authority to take such actions and to make such changes to the Plan or an Award Agreement as the Committee deems necessary to comply with such requirements (including without limitation, after the grant date of an Award, increasing the Exercise Price to equal what was the Fair Market Value on the grant date of Award). Each payment to a Participant made pursuant to this Plan shall be considered a separate payment and not one of a series of payments for purposes of Code Section 409A. Notwithstanding the foregoing or anything elsewhere in the Plan or an Award Agreement to the contrary, if upon a Participant's Separation From Service he/she is then a "specified employee" (as defined in Code Section 409A), then solely to the extent necessary to comply with Code Section 409A and avoid the imposition of taxes under Code Section 409A, the Company shall defer payment of "nonqualified deferred compensation" subject to Code Section 409A payable as a result of and within six (6) months following such Separation From Service under this Plan until the earlier of (i) the first business day of the seventh month following the Participant's Separation From Service, or (ii) ten (10) days after the Company receives written confirmation of the

Participant's death. Any such delayed payments shall be made without interest. In no event whatsoever shall the Company be liable for any additional tax, interest or penalties that may be imposed on a Participant by Code Section 409A or any damages for failing to comply with Code Section 409A.

(l) **Electronic Communications.** Subject to compliance with applicable law and/or regulations, an Award agreement or other documentation or notices relating to the Plan and/or Awards may be communicated to Participants by electronic media.

(m) **Unfunded Plan.** Insofar as it provides for Awards, the Plan shall be unfunded. Although bookkeeping accounts may be established with respect to Participants who are granted Awards under this Plan, any such accounts will be used merely as a bookkeeping convenience. The Company shall not be required to segregate any assets which may at any time be represented by Awards, nor shall this Plan be construed as providing for such segregation, nor shall the Company or the Committee be deemed to be a trustee of stock or cash to be awarded under the Plan.

(n) **Liability of Company Plan.** The Company (or members of the Board or Committee) shall not be liable to a Participant or other persons as to: (i) the non-issuance or sale of Shares as to which the Company has been unable to obtain from any regulatory body having jurisdiction the authority deemed by the Company's counsel to be necessary to the lawful issuance and sale of any Shares hereunder; and (ii) any unexpected or adverse tax consequence or any tax consequence expected, but not realized, by any Participant or other person due to the grant, receipt, exercise or settlement of any Award granted under this Plan.

(o) **Reformation.** In the event any provision of this Plan shall be held illegal or invalid for any reason, such provisions will be reformed by the Board if possible and to the extent needed in order to be held legal and valid. If it is not possible to reform the illegal or invalid provisions then the illegality or invalidity shall not affect the remaining parts of this Plan, and this Plan shall be construed and enforced as if the illegal or invalid provision had not been included.

(p) **Successor Provision.** Any reference to a statute, rule or regulation, or to a section of a statute, rule or regulation, is a reference to that statute, rule, regulation, or section as amended from time to time, both before and after the Adoption Date and including any successor provisions.

(q) **Governing Law.** This Plan, and (unless otherwise provided in the Award Agreement) all Awards, shall be construed in accordance with and governed by the laws of the State of Delaware, but without regard to its conflict of law provisions. The Committee may provide that any dispute as to any Award shall be presented and determined in such forum as the Committee may specify, including through binding arbitration. Unless otherwise provided in the Award Agreement, recipients of an Award under the Plan are deemed to submit to the exclusive jurisdiction and venue of the federal or state courts of California to resolve any and all issues that may arise out of or relate to the Plan or any related Award Agreement.

SECTION 5. SHARES SUBJECT TO PLAN AND SHARE LIMITS.

(a) **Basic Limitations**. The Common Stock issuable under the Plan shall be authorized but unissued Shares or treasury Shares. Subject to adjustment as provided in Section 11, the maximum aggregate number of Shares that may be issued:

(i) under the Plan shall not exceed 5,441,999 Shares (the "Share Limit"); and

(ii) pursuant to the exercise of ISOs granted under this Plan shall not exceed 5,441,999 Shares (the "ISO Limit").

(b) **Share Utilization**. If Awards are forfeited or are terminated for any reason (including the Company's repurchase of unvested Shares from either an Option that was early exercised or from a Restricted Stock Grant), then the forfeited/terminated/repurchased Shares underlying such Awards shall not be counted toward the Share Limit. If exercised SARs or Stock Units are settled in Shares, then only the number of Shares (if any) actually issued in settlement of such SARs or Stock Units shall be counted against the Share Limit. If a Participant pays the Exercise Price by Net Exercise or by surrendering previously owned Shares (or by stock attestation) and/or, as permitted by the Committee, pays any withholding tax obligation with respect to an Award by Net Exercise or by electing to have Shares withheld or surrendering previously owned Shares (or by stock attestation), the surrendered Shares and the Shares withheld to pay taxes shall not be counted toward the Share Limit. Any Shares that are delivered and any Awards that are granted by, or become obligations of, the Company, as a result of the assumption by the Company of, or in substitution for, outstanding awards previously granted by another entity (as provided in Sections 6(e), 8(f), 9(e) or 10(e)) shall not be counted toward the Share Limit or ISO Limit.

(c) **Dividend Equivalents**. Any dividend equivalents distributed under the Plan shall not be counted against the Share Limit.

SECTION 6. TERMS AND CONDITIONS OF OPTIONS.

(a) **Stock Option Agreement.** Each Award of an Option under the Plan shall be evidenced by a Stock Option Agreement between the Optionee and the Company. Such Option shall be subject to all applicable terms and conditions of the Plan and may be subject to any other terms and conditions that are not inconsistent with the Plan (including without limitation any performance conditions). The provisions of the various Stock Option Agreements entered into under the Plan need not be identical. The Stock Option Agreement shall also specify whether the Option is an ISO and if not specified then the Option shall be an NSO.

(b) **Number of Shares**. Each Stock Option Agreement shall specify the number of Shares that are subject to the Option and shall provide for the adjustment of such number in accordance with Section 11.

(c) **Exercise Price**. An Option's Exercise Price shall be established by the Committee and set forth in a Stock Option Agreement. Except with respect to outstanding stock options being assumed or Options being granted in exchange for cancellation of options granted by another issuer as provided under Section 6(e), the Exercise Price of an Option shall not be less than 100% of the Fair Market Value (110% for 10-Percent Shareholders in the case of ISOs) of a Share on the date of Award.

(d) **Exercisability and Term**. Each Stock Option Agreement shall specify the date when all or any installment of the Option is to become vested and/or exercisable. The Stock Option Agreement shall also specify the term of the Option; provided, however that the term of an Option shall in no event exceed ten (10) years from the date of Award. An ISO that is granted to a 10-Percent Shareholder shall have a maximum term of five (5) years. No Option can be exercised after the expiration date specified in the applicable Stock Option Agreement. A Stock Option Agreement may provide for accelerated exercisability in the event of the Optionee's death, Disability or retirement or other events. A Stock Option Agreement may permit an Optionee to exercise an Option before it is vested (an "early exercise"), subject to the Company's right of repurchase at the original Exercise Price of any Shares acquired under the unvested portion of the Option which right of repurchase shall lapse at the same rate the Option would have vested had there been no early exercise. In no event shall the Company be required to issue fractional Shares upon the exercise of an Option and the Committee may specify a minimum number of Shares that must be purchased in any one Option exercise.

(e) **Modifications or Assumption of Options**. Within the limitations of the Plan, the Committee may modify, extend or assume outstanding Options or may accept the cancellation of outstanding stock options (whether granted by the Company or by another issuer) in return for the grant of new Options for the same or a different number of Shares and at the same or a different Exercise Price. For the avoidance of doubt, the Committee may in its discretion Re-Price outstanding Options provided, however, that the new Exercise Price of a Re-Priced Option shall not be less than the Fair Market Value on the date of the Re-Pricing. No modification of an Option shall, without the consent of the Optionee, impair his or her rights or increase his or her obligations under such Option.

(f) **Assignment or Transfer of Options**. Except as otherwise provided in the applicable Stock Option Agreement and then only to the extent permitted by applicable law, no Option shall be transferable by the Optionee other than by will or by the laws of descent and distribution. Except as otherwise provided in the applicable Stock Option Agreement, an Option may be exercised during the lifetime of the Optionee only by Optionee or by the guardian or legal representative of the Optionee. Except as otherwise provided in the applicable Stock Option Agreement, no Option or interest therein may be subject to a short position or a Call Equivalent Position or Put Equivalent Position, nor may any Option or interest therein be gifted, transferred, assigned, alienated, pledged, hypothecated, attached, sold, or encumbered by the Optionee during his/her lifetime, whether by operation of law or otherwise, or be made subject to execution, attachment or similar process.

(g) **Additional Disclosure**. Solely to the extent that the Company is relying on the exemption from registration under Section 12(g) of the Exchange Act, as provided by Rule 12h-1(f) of the Exchange Act, the Company shall provide (or make available to) Optionees with the additional disclosures required by Rule 12h-1(f)(1)(vi) of the Exchange Act. As a condition to receiving these additional disclosures, an Optionee shall agree in writing to keep the information provided in these additional disclosures confidential. If an Optionee does not agree in writing to keep this information confidential, then the Company shall not be required to provide such Optionee with the additional disclosures required by this Section 6(g).

SECTION 7. PAYMENT FOR OPTION SHARES.

(a) **General Rule**. The entire Exercise Price of Shares issued upon exercise of Options shall be payable in cash (or check) at the time when such Shares are purchased by the Optionee, except as follows and if so provided for in an applicable Stock Option Agreement:

(i) In the case of an ISO granted under the Plan, payment shall be made only pursuant to the express provisions of the applicable Stock Option Agreement. The Stock Option Agreement may specify that payment may be made in any form(s) described in this Section 7.

(ii) In the case of an NSO granted under the Plan, the Committee may in its discretion, at any time accept payment in any form(s) described in this Section 7.

(b) **Surrender of Stock**. To the extent that the Committee makes this Section 7(b) applicable to an Option in a Stock Option Agreement, payment for all or any part of the Exercise Price may be made with Shares which have already been owned by the Optionee for such duration as shall be specified by the Committee. Such Shares shall be valued at their Fair Market Value on the date when the new Shares are purchased under the Plan.

(c) **Cashless Exercise**. To the extent that the Committee makes this Section 7(c) applicable to an Option in a Stock Option Agreement, payment for all or a part of the Exercise Price may be made through Cashless Exercise.

(d) **Net Exercise**. To the extent that the Committee makes this Section 7(d) applicable to an Option in a Stock Option Agreement, payment for all or a part of the Exercise Price may be made through Net Exercise.

(e) **Other Forms of Payment**. To the extent that the Committee makes this Section 7(e) applicable to an Option in a Stock Option Agreement, payment may be made in any other form that is consistent with applicable laws, regulations and rules and approved by the Committee.

SECTION 8. TERMS AND CONDITIONS OF STOCK APPRECIATION RIGHTS.

(a) **SAR Agreement**. Each Award of a SAR under the Plan shall be evidenced by a SAR Agreement between the Participant and the Company. Such SAR shall be subject to all applicable terms of the Plan and may be subject to any other terms that are not inconsistent with the Plan (including without limitation any performance conditions). A SAR Agreement may provide for a maximum limit on the amount of any payout notwithstanding the Fair Market Value on the date of exercise of the SAR. The provisions of the various SAR Agreements entered into under the Plan need not be identical. SARs may be granted in consideration of a reduction in the Participant's other compensation.

(b) **Number of Shares**. Each SAR Agreement shall specify the number of Shares to which the SAR pertains and is subject to adjustment of such number in accordance with Section 11.

(c) **Exercise Price**. Each SAR Agreement shall specify the Exercise Price. A SAR Agreement may specify an Exercise Price that varies in accordance with a predetermined formula while the SAR is outstanding. Except with respect to outstanding stock appreciation rights being assumed or SARs being granted in exchange for cancellation of stock appreciation rights granted by another issuer as provided under Section 8(f), the Exercise Price of a SAR shall not be less than 100% of the Fair Market Value on the date of Award.

(d) **Exercisability and Term**. Each SAR Agreement shall specify the date when all or any installment of the SAR is to become exercisable. The SAR Agreement shall also specify the term of the SAR which shall not exceed ten years from the date of Award. No SAR can be exercised after the expiration date specified in the applicable SAR Agreement. A SAR Agreement may provide for accelerated exercisability in the event of the Participant's death, or Disability or other events. SARs may be awarded in combination with Options or other Awards, and such an Award may provide that the SARs will not be exercisable unless the related Options or other Awards are forfeited. A SAR may be included in an ISO only at the time of Award but may be included in an NSO at the time of Award or at any subsequent time, but not later than six months before the expiration of such NSO. A SAR granted under the Plan may provide that it will be exercisable only in the event of a Change in Control.

(e) **Exercise of SARs**. If, on the date when a SAR expires, the Exercise Price under such SAR is less than the Fair Market Value on such date but any portion of such SAR has not been exercised or surrendered, then such SAR may automatically be deemed to be exercised as of such date with respect to such portion to the extent so provided in the applicable SAR agreement. Upon exercise of a SAR, the Participant (or any person having the right to exercise the SAR after Participant's death) shall receive from the Company (i) Shares, (ii) cash or (iii) any combination of Shares and cash, as the Committee shall determine. The amount of cash and/or the Fair Market Value of Shares received upon exercise of SARs shall, in the aggregate, be equal to the amount by which the Fair Market Value (on the date of surrender) of the Shares subject to the SARs exceeds the Exercise Price of the Shares.

(f) **Modification or Assumption of SARs**. Within the limitations of the Plan, the Committee may modify, extend or assume outstanding SARs or may accept the cancellation of outstanding SARs (including stock appreciation rights granted by another issuer) in return for the grant of new SARs for the same or a different number of Shares and at the same or a different Exercise Price. For the avoidance of doubt, the Committee may in its discretion Re-Price outstanding SARs provided, however, that the new Exercise Price of a Re-Priced SAR shall not be less than the Fair Market Value on the date of the Re-Pricing. No modification of a SAR shall, without the consent of the Participant, impair his or her rights or increase his or her obligations under such SAR.

(g) **Assignment or Transfer of SARs**. Except as otherwise provided in the applicable SAR Agreement and then only to the extent permitted by applicable law, no SAR shall be transferable by the Participant other than by will or by the laws of descent and distribution. Except as otherwise provided in the applicable SAR Agreement, a SAR may be exercised during the lifetime of the Participant only by the Participant or by the guardian or legal representative of the Participant. No SAR or interest therein may be transferred, assigned, alienated, pledged, hypothecated, attached, sold, or encumbered by the Participant during his or her lifetime, whether by operation of law or otherwise, or be made subject to execution, attachment or similar process.

SECTION 9. TERMS AND CONDITIONS FOR RESTRICTED STOCK GRANTS.

(a) **Restricted Stock Grant Agreement**. Each Restricted Stock Grant awarded under the Plan shall be evidenced by a Restricted Stock Grant Agreement between the Participant and the Company. Each Restricted Stock Grant shall be subject to all applicable terms and conditions of the Plan and may be subject to any other terms and conditions that are not inconsistent with the Plan (including without limitation any performance conditions). The provisions of the Restricted Stock Grant Agreements entered into under the Plan need not be identical.

(b) **Number of Shares and Payment**. Each Restricted Stock Grant Agreement shall specify the number of Shares to which the Restricted Stock Grant pertains and is subject to adjustment of such number in accordance with Section 11. Restricted Stock Grants may be issued with or without cash consideration under the Plan.

(c) **Vesting Conditions.** Each Restricted Stock Grant may or may not be subject to vesting. Vesting shall occur, in full or in installments, upon satisfaction of the conditions specified in the Restricted Stock Grant Agreement. A Restricted Stock Grant Agreement may provide for accelerated vesting in the event of the Participant’s death, or Disability or other events.

(d) **Voting and Dividend Rights.** The holder of a Restricted Stock Grant (irrespective of whether the Shares subject to the Restricted Stock Grant are vested or unvested) awarded under the Plan shall have the same voting, dividend and other rights

as the Company's other stockholders. However, any dividends received on Shares that are unvested (whether such dividends are in the form of cash or Shares) may be subject to the same vesting conditions and restrictions as the Restricted Stock Grant with respect to which the dividends were paid. Such additional Shares issued as dividends that are subject to the Restricted Stock Grant shall not reduce the number of Shares available for issuance under Section 5.

(e) **Modification or Assumption of Restricted Stock Grants.** Within the limitations of the Plan, the Committee may modify or assume outstanding Restricted Stock Grants or may accept the cancellation of outstanding Restricted Stock Grants (including stock granted by another issuer) in return for the grant of new Restricted Stock Grants for the same or a different number of Shares. No modification of a Restricted Stock Grant shall, without the consent of the Participant, impair his or her rights or increase his or her obligations under such Restricted Stock Grant.

(f) **Assignment or Transfer of Restricted Stock Grants.** Except as provided in Section 14, or in a Restricted Stock Grant Agreement, or as required by applicable law, a Restricted Stock Grant awarded under the Plan shall not be assigned, attached, garnished, optioned, transferred or made subject to any creditor's process, whether voluntarily, involuntarily or by operation of law. Any act in violation of this Section 9(f) shall be void. However, this Section 9(f) shall not preclude a Participant from designating a beneficiary pursuant to Section 4(d) nor shall it preclude a transfer of Restricted Stock Grant Awards by will or pursuant to Section 4(d).

SECTION 10. TERMS AND CONDITIONS FOR STOCK UNITS.

(a) **Stock Unit Agreement**. Each grant of Stock Units under the Plan shall be evidenced by a Stock Unit Agreement between the Participant and the Company. Such Stock Units shall be subject to all applicable terms of the Plan and may be subject to any other terms that are not inconsistent with the Plan (including without limitation any performance conditions). The provisions of the various Stock Unit Agreements entered into under the Plan need not be identical. Stock Units may be granted in consideration of a reduction in the Participant's other compensation.

(b) **Number of Shares and Payment**. Each Stock Unit Agreement shall specify the number of Shares to which the Stock Unit Award pertains and is subject to adjustment of such number in accordance with Section 11. To the extent that an Award is granted in the form of Stock Units, no cash consideration shall be required of the Award recipients.

(c) **Vesting Conditions**. Each Award of Stock Units may or may not be subject to vesting. Vesting shall occur, in full or in installments, upon satisfaction of the conditions specified in the Stock Unit Agreement. A Stock Unit Agreement may provide for accelerated vesting in the event of the Participant's death, or Disability or other events.

(d) **Voting and Dividend Rights**. The holders of Stock Units shall have no voting rights. Prior to settlement or forfeiture, any Stock Unit awarded under the Plan may, at the Committee's discretion, carry with it a right to dividend equivalents. Such right

entitles the holder to be credited with an amount equal to all cash or Common Stock dividends paid on one Share while the Stock Unit is outstanding. Dividend equivalents may be converted into additional Stock Units. Settlement of dividend equivalents may be made in the form of cash, in the form of Shares, or in a combination of both. Prior to vesting of the Stock Units, any dividend equivalents accrued on such unvested Stock Units may be subject to the same vesting conditions and restrictions as the Stock Units to which they attach.

(e) **Modification or Assumption of Stock Units**. Within the limitations of the Plan, the Committee may modify or assume outstanding Stock Units or may accept the cancellation of outstanding Stock Units (including stock units granted by another issuer) in return for the grant of new Stock Units for the same or a different number of Shares. No modification of a Stock Unit shall, without the consent of the Participant, impair his or her rights or increase his or her obligations under such Stock Unit.

(f) **Assignment or Transfer of Stock Units**. Except as provided in Section 14, or in a Stock Unit Agreement, or as required by applicable law, Stock Units shall not be assigned, attached, garnished, optioned, transferred or made subject to any creditor's process, whether voluntarily, involuntarily or by operation of law. Any act in violation of this Section 10(f) shall be void. However, this Section 10(f) shall not preclude a Participant from designating a beneficiary pursuant to Section 4(d) nor shall it preclude a transfer of Stock Units pursuant to Section 4(d).

(g) **Form and Time of Settlement of Stock Units**. Settlement of vested Stock Units may be made in the form of (a) cash, (b) Shares or (c) any combination of both, as determined by the Committee. The actual number of Stock Units eligible for settlement may be larger or smaller than the number included in the original Award. Methods of converting Stock Units into cash may include (without limitation) a method based on the average Fair Market Value of Shares over a series of trading days. Except as otherwise provided in a Stock Unit Agreement or a timely completed deferral election, vested Stock Units shall be settled within thirty days after vesting. The distribution may occur or commence when all vesting conditions applicable to the Stock Units have been satisfied or have lapsed, or it may be deferred, in accordance with applicable law, to a later specified date. The amount of a deferred distribution may be increased by an interest factor or by dividend equivalents. Until an Award of Stock Units is settled, the number of such Stock Units shall be subject to adjustment pursuant to Section 11.

(h) **Creditors' Rights**. A holder of Stock Units shall have no rights other than those of a general creditor of the Company. Stock Units represent an unfunded and unsecured obligation of the Company, subject to the terms and conditions of the applicable Stock Unit Agreement.

(i) **Additional Disclosure**. Solely to the extent that the Company is relying on the exemption from registration under Section 12(g) of the Exchange Act, as provided by Rule 12h-1(f) of the Exchange Act, the Company shall provide (or make available to) Participants holding Stock Units with the additional disclosures required by Rule 12h-1(f)(1)(vi) of the Exchange Act. As a condition to receiving these additional disclosures,

any such Participant shall agree in writing to keep the information provided in these additional disclosures confidential. If any such Participant does not agree in writing to keep this information confidential, then the Company shall not be required to provide such Participant with the additional disclosures required by this Section 10(i).

SECTION 11. ADJUSTMENTS.

(a) **Adjustments**. In the event of a subdivision of the outstanding Shares, a declaration of a dividend payable in Shares, a declaration of a dividend payable in a form other than Shares in an amount that has a material effect on the price of Shares, a combination or consolidation of the outstanding Shares (by reclassification or otherwise) into a lesser number of Shares, a stock split, a reverse stock split, a reclassification or other distribution of the Shares without the receipt of consideration by the Company, of or on the Common Stock, a recapitalization, a combination, a spin-off or a similar occurrence, the Committee shall make equitable and proportionate adjustments to:

(i) the Share Limit and ISO Limit specified in Section 5(a);

(ii) the number and kind of securities available for Awards (and which can be issued as ISOs) under Section 5;

(iii) the number and kind of securities covered by each outstanding Award;

(iv) the Exercise Price under each outstanding Option and SAR; and

(v) the number and kind of outstanding securities issued under the Plan.

(b) **Participant Rights.** Except as provided in this Section 11, a Participant shall have no rights by reason of any issue by the Company of stock of any class or securities convertible into stock of any class, any subdivision or consolidation of shares of stock of any class, the payment of any stock dividend or any other increase or decrease in the number of shares of stock of any class. If by reason of an adjustment pursuant to this Section 11, a Participant's Award covers additional or different shares of stock or securities, then such additional or different shares and the Award in respect thereof shall be subject to all of the terms, conditions and restrictions which were applicable to the Award and the Shares subject to the Award prior to such adjustment.

(c) **Fractional Shares.** Any adjustment of Shares pursuant to this Section 11 shall be rounded down to the nearest whole number of Shares. Under no circumstances shall the Company be required to authorize or issue fractional shares. To the extent permitted by applicable law, no consideration shall be provided as a result of any fractional shares not being issued or authorized.

SECTION 12. EFFECT OF A CHANGE IN CONTROL.

(a) **Merger or Reorganization.** In the event that there is a Change in Control and/or the Company is a party to a merger or acquisition or reorganization or similar transaction, outstanding Awards shall be subject to the merger agreement or other applicable transaction agreement. Such agreement may provide, without limitation, that subject to the consummation of the applicable transaction, for the assumption (or substitution) of outstanding Awards by the surviving corporation or its parent, for their continuation by the Company (if the Company is a surviving corporation), for accelerated vesting or for their cancellation with or without consideration, in all cases without the consent of the Participant.

(b) **Acceleration of Vesting.** In the event that a Change in Control occurs and there is no assumption, substitution or continuation of Awards pursuant to Section 12(a), the Committee in its discretion may provide that all Awards shall vest and become exercisable as of immediately before such Change in Control. For avoidance of doubt, "substitution" includes, without limitation, an Award being replaced by a cash award that provides an equivalent intrinsic value (wherein intrinsic value equals the difference between the market value of a share and any exercise price). The Committee may also in its discretion include in an Award agreement a requirement that unless Section 280G Approval has been obtained, no acceleration of vesting shall occur with respect to an Award to the extent that such acceleration would, after taking into account any other payments in the nature of compensation to which the Participant would have a right to receive from the Company and any other person contingent upon the occurrence of such Change in Control, result in a "parachute payment" as defined under Code Section 280G.

SECTION 13. LIMITATIONS ON RIGHTS.

(a) **Retention Rights**. Neither the Plan nor any Award granted under the Plan shall be deemed to give any individual a right to remain in Service as an Employee, Consultant, or Non-Employee Director of the Company, a Parent, a Subsidiary or an Affiliate or to receive any future Awards under the Plan. The Company and its Parents and Subsidiaries and Affiliates reserve the right to terminate the Service of any person at any time, and for any reason, subject to applicable laws, the Company's Certificate of Incorporation and Bylaws and a written employment agreement (if any).

(b) **Regulatory Requirements**. Any other provision of the Plan notwithstanding, the obligation of the Company to issue Shares or other securities under the Plan shall be subject to all applicable laws, rules and regulations and such approval by any regulatory body as may be required. The Company reserves the right to restrict, in whole or in part, the delivery of Shares or other securities pursuant to any Award prior to the satisfaction of all legal requirements relating to the issuance of such Shares or other securities, to their registration, qualification or listing or to an exemption from registration, qualification or listing.

(c) **Dissolution**. To the extent not previously exercised or settled, all Options, SARs, Stock Units and unvested Restricted Stock Grants shall terminate immediately prior to the dissolution or liquidation of the Company and shall be forfeited to the Company without consideration (except for repayment of any amounts a Participant had paid to the Company to acquire unvested Shares underlying the forfeited Awards).

SECTION 14. WITHHOLDING TAXES.

(a) **General**. A Participant shall make arrangements satisfactory to the Company for the satisfaction of any withholding tax obligations that arise in connection with his or her Award. The Company shall not be required to issue any Shares or make any cash payment under the Plan until such obligations are satisfied and the Company shall, to the extent permitted by law, have the right to deduct any such taxes from any payment of any kind otherwise due to the Participant.

(b) **Share Withholding**. The Committee in its discretion may permit or require a Participant to satisfy all or part of his or her withholding tax obligations by having the Company withhold all or a portion of any Shares that otherwise would be issued to him or her or by surrendering all or a portion of any Shares that he or she previously acquired (or by stock attestation). Such Shares shall be valued based on the value of the actual trade or, if there is none, the Fair Market Value as of the previous day. Any payment of taxes by assigning Shares to the Company may be subject to restrictions, including, but not limited to, any restrictions required by rules of the SEC. The Committee may also, in its discretion, permit or require a Participant to satisfy withholding tax obligations related to an Award through a sale of Shares underlying the Award or, in the case of Options, through Net Exercise or Cashless Exercise. The number of Shares that are withheld from an Award pursuant to this section may also be limited by the Committee, to the extent necessary, to avoid liability-classification of the Award (or other adverse accounting treatment) under applicable financial accounting rules including without limitation by requiring that no amount may be withheld which is in excess of minimum statutory withholding rates. The Committee, in its discretion, may permit other forms of payment of applicable tax withholding.

SECTION 15. DURATION AND AMENDMENTS.

(a) **Term of the Plan**. The Plan, as set forth herein, is effective on the Adoption Date provided, however, that the Plan is subject to the approval of the Company's stockholders within one year of the Adoption Date. If the Stockholder Approval Date does not occur before the first anniversary of the Adoption Date, then the Plan shall terminate as of the first anniversary of the Adoption Date and any Awards granted under the Plan shall also immediately terminate without consideration to any Award holder. If the stockholders timely approve the Plan, then the Plan shall terminate on the day before the tenth anniversary of the Adoption Date and may be terminated on any earlier date pursuant to this Section 15. This Plan will not in any way affect outstanding awards that were issued under any other Company equity compensation plans.

(b) **Right to Amend or Terminate the Plan**. The Board may amend or terminate the Plan at any time and for any reason. No Awards shall be granted under the Plan after the Plan's termination. An amendment of the Plan shall be subject to the approval of the Company's stockholders only to the extent required by applicable laws, regulations or rules. In addition, no such amendment or termination (or amendment of an executed Award Agreement) shall be made which would materially impair the rights of any Participant, without such Participant's written consent, under any then-outstanding Award. In the event of any conflict in terms between the Plan and any Award agreement, the terms of the Plan shall prevail and govern.

SECTION 16. EXECUTION.

To record the adoption of the Plan by the Board, the Company has caused its duly authorized Officer to execute this Plan on behalf of the Company.

SANTA MARIA BIOTHERAPEUTICS, INC.

By: /s/ Isaac Ciechanover

Name: Isaac Ciechanover

Title: President and CEO

Exhibit 10.7

2012 EQUITY INCENTIVE PLAN

STOCK UNIT AGREEMENT

The Company hereby awards Stock Units to the Participant named below. The terms and conditions of the Award are set forth in this cover sheet, in the attached Stock Unit Agreement and in the Plan. This cover sheet is incorporated into and a part of the attached Stock Unit Agreement (together, the "Agreement").

Date of Award:

Expiration Date:

Name of Participant:

Number of Stock Units Awarded:

Vesting Calculation Date:

Certificate Number:

By signing this cover sheet, Participant agrees to all of the terms and conditions described in the attached Stock Unit Agreement and in the Plan. Participant is also acknowledging receipt of this Agreement and a copy of the Plan. Participant hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Committee upon any questions relating to the Plan or this Award.

Participant: _____

(Signature)

Company: _____

(Signature)

Title:

Attachment

2012 EQUITY INCENTIVE PLAN

STOCK UNIT AGREEMENT

The Plan and Other Agreements and Certain Definitions

The text of the Plan is incorporated in this Agreement by this reference. Participant and the Company agree to execute such further instruments and to take such further action as may reasonably be necessary to carry out the intent of this Agreement. Unless otherwise defined in this Agreement, certain capitalized terms used in this Agreement are defined in the Plan.

This Agreement and the Plan constitute the entire understanding between Participant and the Company regarding this Award of Stock Units. Any prior agreements, commitments or negotiations are superseded.

Participant understands that his or her consulting relationship with the Company can be terminated at any time by the Company and that nothing in this Agreement or the Plan changes the at-will nature of this non-employee consulting relationship.

For purposes of this Agreement, the following terms have the below defined meanings:

"Liquidity Event Vesting" means that, before the Expiration Date, there has been a consummation of either: (1) an IPO or (2) a Change in Control.

"Settlement Time" means the time when a Vested Stock Unit is exchanged for a Share (or the cash equivalent value) in accordance with the following:

(i) If the Liquidity Event Vesting occurred because of a Change in Control then the Settlement Time for then Vested Stock Units shall occur as of immediately before the Change in Control.

(ii) If the Liquidity Event Vesting occurred because of an IPO then the Settlement Time for then Vested Stock Units shall occur on the first business day after the date that is six months after the IPO. For Stock Units which become Vested Stock Units after the IPO, the Settlement Time shall occur on the first business day in January of the year immediately following the year in which the Stock Units became Vested Stock Units. Notwithstanding the foregoing provisions of this clause (ii), if a Change in Control occurs after the IPO then the Settlement Time for Vested Stock Units shall occur as specified in clause (i) above.

"Vested Stock Unit" means, with respect to a Stock Unit subject to this Agreement, that such Stock Unit has become Service-Based Vested and that the Liquidity Event Vesting has occurred before the Expiration Date.

Vesting

As of the Date of Award, none of the Stock Units subject to this Agreement are Vested Stock Units. Participant will receive a benefit with respect to this Award only to the extent that Stock Units become Vested Stock Units. For any Stock Unit to become a Vested Stock Unit, two separate vesting conditions must each be satisfied before the Expiration Date.

Accordingly, in order for a Stock Unit to become a Vested Stock Unit, one vesting condition is that it becomes "Service-Based Vested" (as described below) and the other vesting condition is the timely occurrence of the Liquidity Event Vesting. For avoidance of doubt, Participant will have no rights with respect to this Award to the extent the Liquidity Event Vesting condition is not satisfied (regardless of the extent to which Stock Units were Service-Based Vested). All Stock Units that are not Vested Stock Units as of the Expiration Date shall be then forfeited without consideration. Stock Units which are Service-Based Vested shall remain outstanding until the earlier of their settlement or the Expiration Date.

Service-Based Vested Requirement: The Service-Based Vested requirements will be satisfied in installments as to this Award as follows: As long as Participant renders continuous Service, Participant will become incrementally Service-Based Vested as to 25% of the total number of Stock Units awarded, as shown above on the cover sheet, on the first anniversary of the Vesting Calculation Date and thereafter 1/48th of the total number of Stock Units awarded shall become incrementally Service-Based Vested on each monthly anniversary of the first anniversary of the Vesting Calculation Date until the Service-Based Vested requirement is fully satisfied on the fourth anniversary of the Vesting Calculation Date. No unvested Stock Units can become Service-Based Vested after Participant's Service has terminated and any Stock Units that are not Service-Based Vested shall be forfeited without consideration on the Participant's Termination Date. In all cases, the resulting aggregate number of Service-Based Vested Stock Units will be rounded down to the nearest whole number.

Settlement

To the extent a Stock Unit becomes a Vested Stock Unit and subject to Participant's satisfaction of any tax withholding obligations as discussed below, each Vested Stock Unit will entitle Participant to receive one Share (or cash equivalent) at the Settlement Time.

The Committee in its discretion may decide to settle Vested Stock Units with cash and/or Shares which will be distributed to Participant at the Settlement Time in exchange for such Vested Stock Units. If cash is utilized in settling the Vested Stock Units, the Fair Market Value of a Share (determined as of the Settlement Time) shall be used to determine the value of each Vested Stock Unit.

Issuance of such Shares and/or cash shall be in complete satisfaction of settled Vested Stock Units. Such settled Vested Stock Units shall be immediately cancelled and no longer outstanding and Participant shall have no further rights or entitlements related to those settled Vested Stock Units.

No Assignment

Stock Units shall not be sold, anticipated, assigned, attached, garnished, optioned, transferred or made subject to any creditor's process, whether voluntarily, involuntarily or by operation of law. If Participant attempts to do any of these things, this Award will immediately become invalid. Participant may, however, dispose of this Award in Participant's will or it may be transferred by the laws of descent and distribution. Subject to the previous sentence, the Company is not obligated to recognize Participant's spouse's interest in this Award regardless of any marital property settlement agreement.

The Company's Right of First Refusal

If at any time Participant proposes to transfer Shares ("Transfer") that were acquired under this Agreement then the Participant shall promptly give the Company written notice of the Participant intention to make the Transfer (the "Transfer Notice"). The Transfer Notice shall include (i) a description of the Shares to be transferred (the "Offered Shares"), (ii) the name(s) and address(es) of the prospective transferee(s), (iii) the purchase price and form of consideration proposed to be paid for the Offered Shares and (iv) the other material terms and conditions upon which the proposed Transfer is to be made. The Transfer Notice shall certify that the Participant has received a firm offer from the prospective transferee(s) and in good faith believes a binding agreement for the Transfer is obtainable on the terms set forth in the Transfer Notice. The Transfer Notice shall also include a copy of any written proposal, term sheet or letter of intent or other agreement relating to the proposed Transfer.

The Company shall have an option for a period of ten (10) days from its receipt of the Transfer Notice to elect to purchase the Offered Shares at the same price and subject to the same material terms and conditions as described in the Transfer Notice. The Company may exercise such purchase option and purchase all or any portion of the Offered Shares by notifying the Participant in writing before expiration of such ten (10) day period as to the number of such shares that it wishes to purchase. If the Company gives the Participant notice that it desires to purchase such shares, then payment for the Offered Shares shall be made by check or wire transfer against delivery of the Offered Shares to be purchased at a time and place agreed upon between the parties, which time shall be no later than forty-five (45) days after receipt by the Company of the Transfer Notice, unless the Transfer Notice contemplated a later closing with the prospective third party transferee(s) or unless the value of the consideration to be paid for the Offered Shares has not yet been established in accordance with the below provisions. If the Company fails to purchase any or all of the Offered Shares by exercising the option within the ten day period provided, the remaining Offered Shares shall be subject to the following paragraphs.

Subject to the Company's option set forth above, if at any time the Participant proposes a Transfer, then, within five (5) days after the Company has declined to purchase all, or a portion, of the Offered Shares or the Company's option to so purchase the Offered Shares has expired, the Participant shall give each Company stockholder (each a "Holder") that is designated by the Company an "Additional Transfer Notice" that shall include all of the information and certifications required in a Transfer Notice and shall additionally identify the Offered Shares that the Company has declined to purchase (the "Remaining Shares") and reference the Holders' rights of first refusal with respect to the proposed Transfer contained in this Agreement.

Each Holder shall have an option for a period of fifteen (15) days from its receipt of the Additional Transfer Notice from the Participant set forth above to elect to purchase its respective pro rata share of the Remaining Shares at the same price and subject to the same material terms and conditions as described in the Additional Transfer Notice. Each Holder may exercise such purchase option and purchase all or any portion of its pro rata share of the Remaining Shares (a "Participating Holder" for the purposes of this Agreement) by notifying the Participant and the Company in writing, before expiration of the fifteen (15)-day period as to the number of such shares that it wishes to purchase (the "Participating Holder Notice"). Each Holder's pro rata share of the Remaining Shares shall be a fraction of the Remaining Shares, the numerator of which shall be the number of shares of Common Stock (including shares of Common Stock issuable upon conversion of Preferred Shares) owned by such Holder on the date of the Transfer Notice and denominator of which shall be the total number of Shares (including any securities convertible into Shares) held by all Holders on the date of the Transfer Notice.

In the event any Holder elects not to purchase its pro rata share of the Remaining Shares available pursuant to its option above within the time period set forth therein, then the Participant shall promptly give written notice (the "Overallotment Notice") to each Participating Holder that has elected to purchase all of its pro rata share of the Remaining Shares (each a "Fully Participating Holder"), which notice shall set forth the number of Remaining Shares not purchased by the other Holders ("Unsubscribed Shares"), and shall offer the Fully Participating Holders the right to acquire the Unsubscribed Shares. Each Fully Participating Holder shall have five (5) days after its receipt of the Overallotment Notice to deliver a written notice to the Participant (the "Participating Holders Overallotment Notice") of its election to purchase its pro rata share of the Unsubscribed Shares on the same terms and conditions as set forth in the Additional Transfer Notice, which such Participating Holders Overallotment Notice shall also indicate the maximum number of the Unsubscribed Shares that such Fully

Participating Holder will purchase in the event that any other Fully Participating Holder elects not to purchase its pro rata share of the Unsubscribed Shares. For the purposes of determining a Fully Participating Holder's pro rata share of the unsubscribed shares, the numerator shall be the same as that used in above and the denominator shall be the total number of Shares (including Shares issuable upon conversion of Preferred Shares) owned by all Fully Participating Holders on the date of the Transfer Notice.

Each Participating Holder shall be entitled to apportion Remaining Shares to be purchased among its partners and affiliates, provided that such Participating Holder notifies the Participant of such allocation.

The Participating Holders shall effect the purchase of the Remaining Shares with payment by check or wire transfer against delivery of the Remaining Shares to be purchased at a time and place agreed upon between the parties, which time shall be no later than sixty (60) days after receipt by the Company of the Transfer Notice, unless the Transfer Notice contemplated a later closing with the prospective third-party transferee(s) or unless the value of the consideration to be paid for the Offered Shares has not yet been established.

Should the purchase price specified in the Transfer Notice or Additional Transfer Notice be payable in a form of consideration other than cash or evidences of indebtedness, the Company (and the Participating Holders) shall have the right to pay such purchase price in an amount of cash equal to the fair market value of such consideration. If the Selling Common Holder and the Company (or the Participating Holders) cannot agree on such fair market value within ten (10) days after receipt by the Company of the Transfer Notice (or receipt of the Additional Transfer Notice by the Holders), the valuation shall be made by an appraiser of recognized standing selected by the Participant and the Company (or a majority-in-interest of the Participating Holders) or, if they cannot agree on an appraiser within twenty (20) days after receipt by the Company of the Transfer Notice (or the receipt of the Additional Transfer Notice by the Holders), each shall select an appraiser of recognized standing and those appraisers shall designate a third appraiser of recognized standing, whose appraisal shall be determinative of such value. The cost of such appraisal shall be shared equally by the Participant, on the one hand, and the Company (and, to the extent there are any, the Participating Holders, on the other hand, with that half of the cost to be borne by the Company and the Participating Holders to be apportioned on a pro rata basis based on the number of Shares each such party has expressed an interest in purchasing. If the time for the closing of the Company's purchase or the Participating Holders' purchase has expired but the determination of the value of the purchase price offered by the prospective transferee(s) has not been finalized, then such closing shall be held on or prior to the fifth business day after such valuation shall have been made pursuant to this section.

The Company's Right of First Refusal shall inure to the benefit of its successors and assigns and shall be binding upon any transferee of the Shares.

The Company's Right of First Refusal shall terminate in the event that Shares are listed on an established stock exchange or are quoted regularly on the OTC Bulletin Board.

Leaves of Absence

For purposes of this Agreement, Participant's Service shall not terminate when Participant goes on a *bona fide* leave of absence that was approved by the Company (or its Parent, Subsidiary or Affiliate) in writing, if the terms of the leave provide for continued Service crediting, or when continued Service crediting is required by applicable law. Participant's Service terminates in any event when the approved leave ends, unless Participant immediately returns to active work.

The Company determines which leaves count for this purpose (along with determining the effect of a leave of absence on vesting of the Award), and when Participant's Service terminates for all purposes under the Plan.

Voting and Other Rights

As a holder of Stock Units, Participant shall have no rights other than those of a general creditor of the Company. Among other things, this means Participant as a holder of outstanding Stock Units has no right to vote and none of the rights and privileges of a stockholder of the Company. Subject to the terms and conditions of this Agreement, Stock Units create no fiduciary duty of the Company to Participant and only represent an unfunded and unsecured contractual obligation of the Company. The Stock Units shall not be treated as property or as a trust fund of any kind.

Participant, or Participant's estate or heirs, has no rights as a stockholder of the Company until Participant has been issued the applicable Shares by the Company and has satisfied all other conditions specified in the Plan. No adjustment shall be made for cash or stock dividends or other rights for which the record date is prior to the date when such applicable Shares are issued, except as provided in the Plan.

Taxes and Withholding

Participant will be solely responsible for payment of any and all applicable taxes associated with this Award.

The delivery to Participant of any Shares (or cash) underlying Vested Stock Units will not be permitted unless and until Participant has satisfied any withholding or other taxes that may be due. Any such tax withholding obligations may be settled in the discretion of the Committee by the Company withholding and retaining a portion of the Shares from the Shares that would otherwise be deliverable to Participant as of the Settlement Time and/or by Shares which have already been owned by Participant for more

than six (6) months and which are surrendered to the Company. Such withheld or surrendered Shares will be applied to pay the withholding obligation by using the aggregate Fair Market Value of the withheld or surrendered Shares determined as of the Settlement Time. If Shares are withheld, then Participant will be delivered the net amount of vested Shares after the Share withholding has been effected and Participant will not receive the withheld Shares.

Code Section 409A

This Award is intended to be exempt from or compliant with section 409A of the Code and will be interpreted accordingly.

Restrictions on Issuance and Resale

The Company will not issue any Shares if the issuance of such Shares at that time would violate any law or regulation.

Participant hereby agrees that Participant will not, without the prior written consent of the managing underwriter, during the period commencing on the date of the final prospectus relating to an IPO and ending on the date specified by the Company and the managing underwriter (such period not to exceed one hundred eighty (180) days) (i) lend, offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, or otherwise transfer or dispose of, directly or indirectly, any Shares or (ii) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of the Shares, whether any such transaction described in clause (i) or (ii) above is to be settled by delivery of Shares or other securities, in cash or otherwise. The foregoing provisions of this section shall apply only to the IPO, shall not apply to the sale of any shares to an underwriter pursuant to an underwriting agreement. The underwriters in connection with the IPO are intended third party beneficiaries of this section and shall have the right, power and authority to enforce the provisions hereof as though they were a party hereto. Participant further agrees to execute such agreements as may be reasonably requested by the underwriters in the IPO that are consistent with this section or that are necessary to give further effect thereto.

In order to enforce the foregoing covenant, the Company may impose stop transfer instructions with respect to Participant's Shares until the end of such period. Notwithstanding the foregoing, if (i) during the last seventeen (17) days of the one hundred eighty (180)-day restricted period, the Company issues an earnings release or material news or a material event relating to the Company occurs; or (ii) prior to the expiration of the one hundred eighty (180)-day restricted period, the Company announces that it will release earnings results during the sixteen (16)-day period beginning on the last day of the one hundred eighty (180)-day period, the restrictions imposed by this section shall continue to apply until the expiration of the eighteen (18)-day period beginning on the issuance of the earnings release or the occurrence of the material news or material event.

If the sale of Shares acquired under this Award is not registered under the Securities Act, but an exemption is available which requires an investment representation or other representation and warranty, Participant shall represent and agree that the Shares being acquired are being acquired for investment, and not with a view to the sale or distribution thereof, and shall make such other representations and warranties as are deemed necessary or appropriate by the Company and its counsel.

Participant will also be required, as a condition of settlement of this Award, to enter into any Stockholders Agreement or other agreements that are applicable to stockholders. In the event of any conflict in terms between the Stockholders Agreement and this Agreement, the terms of the Stockholders Agreement shall prevail and govern.

No Retention Rights This Award and this Agreement does not give Participant the right to be retained by the Company (or any Parent or any Subsidiaries or Affiliates) in any capacity. The Company (or any Parent and any Subsidiaries or Affiliates) reserves the right to terminate Participant's Service at any time and for any reason.

Adjustments In the event of a stock split, a stock dividend or a similar change in the Company stock, the number of outstanding Stock Units covered by this Award may be adjusted (and rounded down to the nearest whole number) pursuant to the Plan. The Stock Units shall be subject to the terms of the agreement of merger, liquidation or reorganization in the event the Company is subject to such corporate activity.

Legends All certificates representing the Shares issued under this Award (if any) may, where applicable, have endorsed thereon the following legends and any other legends the Company determines appropriate:

"THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO CERTAIN RESTRICTIONS ON TRANSFER AND OPTIONS TO PURCHASE SUCH SHARES SET FORTH IN AN AGREEMENT BETWEEN THE COMPANY AND THE REGISTERED HOLDER, OR HIS OR HER PREDECESSOR IN INTEREST. A COPY OF SUCH AGREEMENT IS ON FILE AT THE PRINCIPAL OFFICE OF THE COMPANY AND WILL BE FURNISHED UPON WRITTEN REQUEST TO THE SECRETARY OF THE COMPANY BY THE HOLDER OF RECORD OF THE SHARES REPRESENTED BY THIS CERTIFICATE."

"THE SHARES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, AND MAY NOT BE SOLD, PLEDGED, OR OTHERWISE TRANSFERRED WITHOUT AN EFFECTIVE REGISTRATION

THEREOF UNDER SUCH ACT OR AN OPINION OF COUNSEL, SATISFACTORY TO THE COMPANY AND ITS COUNSEL, THAT SUCH REGISTRATION IS NOT REQUIRED."

"THE SECURITIES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO A LOCK-UP PERIOD AFTER THE EFFECTIVE DATE OF THE ISSUER'S REGISTRATION STATEMENT FILED UNDER THE ACT, AS AMENDED, AS SET FORTH IN AN AGREEMENT BETWEEN THE COMPANY AND THE ORIGINAL HOLDER OF THESE SECURITIES, A COPY OF WHICH MAY BE OBTAINED AT THE ISSUER'S PRINCIPAL OFFICE. SUCH LOCK-UP PERIOD IS BINDING ON TRANSFEREES OF THESE SHARES."

Notice Any notice to be given or delivered to the Company relating to this Agreement shall be in writing and addressed to the Company at its principal corporate offices. Any notice to be given or delivered to Participant relating to this Agreement shall be in writing and addressed to Participant at such address of which Participant shall have advised the Company in writing. All notices shall be deemed effective upon personal delivery or upon deposit in the U.S. mail, postage prepaid and properly addressed to the party to be notified.

Applicable Law This Agreement will be interpreted and enforced under the laws of the State of Delaware without reference to the conflicts of law provisions thereof.

Voluntary Participant Participant acknowledges that Participant is voluntarily participating in the Plan.

No Rights to Future Awards Participant's rights, if any, in respect of or in connection with this Award or any other Awards are derived solely from the discretionary decision of the Company to permit Participant to participate in the Plan. By accepting this Award, Participant expressly acknowledges that there is no obligation on the part of the Company to continue the Plan and/or grant any additional Awards to Participant or benefits in lieu of other Awards even if Awards have been granted repeatedly in the past. All decisions with respect to future Awards, if any, will be at the sole discretion of the Committee.

Future Value The future value of the underlying Shares is unknown and cannot be predicted. If the underlying Shares do not increase in value after the Date of Award, the Award could have little or no value. If Participant obtains Shares under this Award, the value of the Shares acquired upon settlement may subsequently increase or decrease in value.

No Advice Regarding Award The Company has not provided any tax, legal or financial advice, nor has the Company made any recommendations regarding Participant's participation in the Plan, or Participant's acquisition or sale of the underlying Shares. Participant is hereby advised to consult with Participant's own personal tax,

	legal and financial advisors regarding this Award and Participant's participation in the Plan before taking any action related to this Award or the Plan.
No Right to Damages	Participant will have no right to bring a claim or to receive damages if any portion of the Award is cancelled or expires. The loss of existing or potential profit in the Award will not constitute an element of damages in the event of the termination of Participant's Service for any reason, even if the termination is in violation of an obligation of the Company or a Parent or a Subsidiary or an Affiliate to Participant.
Data Privacy	Participant hereby explicitly and unambiguously consents to the collection, use and transfer, in electronic or other form, of Participant's personal data as described in this document by the Company for the exclusive purpose of implementing, administering and managing Participant's participation in the Plan. Participant understands that the Company holds certain personal information about Participant, including, but not limited to, name, home address and telephone number, date of birth, social security or insurance number or other identification number, salary, nationality, job title, any shares of stock or directorships held in the Company, details of all Awards or any other entitlement to Shares awarded, cancelled, purchased, exercised, vested, unvested or outstanding in Participant's favor for the purpose of implementing, managing and administering the Plan ("Data"). Participant understands that the Data may be transferred to any third parties assisting in the implementation, administration and management of the Plan, that these recipients may be located in Participant's country or elsewhere and that the recipient country may have different data privacy laws and protections than Participant's country. Participant authorizes the recipients to receive, possess, use, retain and transfer the Data, in electronic or other form, for the purposes of implementing, administering and managing Participant's participation in the Plan, including any requisite transfer of such Data, as may be required to a broker or other third party with whom Participant may elect to deposit any Shares acquired under the Plan.

By signing the cover sheet of this Agreement, Participant agrees to all of the terms and conditions described above and in the Plan. Any inconsistency between this Agreement and the Plan shall be resolved by reference to the Plan.

Exhibit 10.8

ATARA BIOTHERAPEUTICS, INC.

2014 EMPLOYEE STOCK PURCHASE PLAN

1. GENERAL; PURPOSE.

(a) The Plan provides a means by which Eligible Employees of the Company and certain designated Related Corporations may be given an opportunity to purchase shares of Common Stock. The Plan permits the Company to grant a series of Purchase Rights to Eligible Employees under an Employee Stock Purchase Plan.

(b) The Company, by means of the Plan, seeks to retain the services of such Employees, to secure and retain the services of new Employees and to provide incentives for such persons to exert maximum efforts for the success of the Company and its Related Corporations.

2. ADMINISTRATION.

(a) The Board will administer the Plan unless and until the Board delegates administration of the Plan to a Committee or Committees, as provided in Section 2(c).

(b) The Board will have the power, subject to, and within the limitations of, the express provisions of the Plan:

(i) To determine how and when Purchase Rights will be granted and the provisions of each Offering (which need not be identical).

(ii) To designate from time to time which Related Corporations of the Company will be eligible to participate in the Plan.

(iii) To construe and interpret the Plan and Purchase Rights, and to establish, amend and revoke rules and regulations for its administration. The Board, in the exercise of this power, may correct any defect, omission or inconsistency in the Plan, in a manner and to the extent it deems necessary or expedient to make the Plan fully effective.

(iv) To settle all controversies regarding the Plan and Purchase Rights granted under the Plan.

(v) To suspend or terminate the Plan at any time as provided in Section 12.

(vi) To amend the Plan at any time as provided in Section 12.

(vii) Generally, to exercise such powers and to perform such acts as it deems necessary or expedient to promote the best interests of the Company and its Related Corporations and to carry out the intent that the Plan be treated as an Employee Stock Purchase Plan.

(viii) To adopt such procedures and sub-plans as are necessary or appropriate to permit participation in the Plan by Employees who are foreign nationals or employed outside the United States.

(c) The Board may delegate some or all of the administration of the Plan to a Committee or Committees. If administration is delegated to a Committee, the Committee will have, in connection with the administration of the Plan, the powers theretofore possessed by the Board that have been delegated to the Committee, including the power to delegate to a subcommittee any of the administrative powers the Committee is authorized to exercise (and references in this Plan to the Board will thereafter be to the Committee or subcommittee), subject, however, to such resolutions, not inconsistent with the provisions of the Plan, as may be adopted from time to time by the Board. The Board may retain the authority to concurrently administer the Plan with the Committee and may, at any time, revest in the Board some or all of the powers previously delegated. Whether or not the Board has delegated administration of the Plan to a Committee, the Board will have the final power to determine all questions of policy and expediency that may arise in the administration of the Plan.

(d) All determinations, interpretations and constructions made by the Board in good faith will not be subject to review by any person and will be final, binding and conclusive on all persons.

3. SHARES OF COMMON STOCK SUBJECT TO THE PLAN.

(a) Subject to the provisions of Section 11(a) relating to Capitalization Adjustments, the maximum number of shares of Common Stock that may be issued under the Plan will not exceed 300,000 shares of Common Stock, plus the number of shares of Common Stock that are automatically added on January 1st of each year for a period of up to ten years, commencing on the first January 1 following the IPO Date and ending on (and including) January 1, 2024, in an amount equal to the lesser of (i) 1% of the total number of shares of Capital Stock outstanding on December 31st of the preceding calendar year, and (ii) 300,000 shares of Common Stock. Notwithstanding the foregoing, the Board may act prior to the first day of any calendar year to provide that there will be no January 1st increase in the share reserve for such calendar year or that the increase in the share reserve for such calendar year will be a lesser number of shares of Common Stock than would otherwise occur pursuant to the preceding sentence.

(b) If any Purchase Right granted under the Plan terminates without having been exercised in full, the shares of Common Stock not purchased under such Purchase Right will again become available for issuance under the Plan.

(c) The stock purchasable under the Plan will be shares of authorized but unissued or reacquired Common Stock, including shares repurchased by the Company on the open market.

4. GRANT OF PURCHASE RIGHTS; OFFERING.

(a) The Board may from time to time grant or provide for the grant of Purchase Rights to Eligible Employees under an Offering (consisting of one or more Purchase Periods) on an Offering Date or Offering Dates selected by the Board. Each Offering will be in such form and will contain such terms and conditions as the Board will deem appropriate, and will comply

with the requirement of Section 423(b)(5) of the Code that all Employees granted Purchase Rights will have the same rights and privileges. The terms and conditions of an Offering shall be incorporated by reference into the Plan and treated as part of the Plan. The provisions of separate Offerings need not be identical, but each Offering will include (through incorporation of the provisions of this Plan by reference in the document comprising the Offering or otherwise) the period during which the Offering will be effective, which period will not exceed 27 months beginning with the Offering Date, and the substance of the provisions contained in Sections 5 through 8, inclusive.

(b) If a Participant has more than one Purchase Right outstanding under the Plan, unless he or she otherwise indicates in forms delivered to the Company: (i) each form will apply to all of his or her Purchase Rights under the Plan, and (ii) a Purchase Right with a lower exercise price (or an earlier-granted Purchase Right, if different Purchase Rights have identical exercise prices) will be exercised to the fullest possible extent before a Purchase Right with a higher exercise price (or a later-granted Purchase Right if different Purchase Rights have identical exercise prices) will be exercised.

(c) The Board will have the discretion to structure an Offering so that if the Fair Market Value of a share of Common Stock on the first Trading Day of a new Purchase Period within that Offering is less than or equal to the Fair Market Value of a share of Common Stock on the Offering Date for that Offering, then (i) that Offering will terminate immediately as of that first Trading Day, and (ii) the Participants in such terminated Offering will be automatically enrolled in a new Offering beginning on the first Trading Day of such new Purchase Period.

5. ELIGIBILITY.

(a) Purchase Rights may be granted only to Employees of the Company or, as the Board may designate in accordance with Section 2(b), to Employees of a Related Corporation. Except as provided in Section 5(b), an Employee will not be eligible to be granted Purchase Rights unless, on the Offering Date, the Employee has been in the employ of the Company or the Related Corporation, as the case may be, for such continuous period preceding such Offering Date as the Board may require, but in no event will the required period of continuous employment be equal to or greater than two years. In addition, the Board may provide that no Employee will be eligible to be granted Purchase Rights under the Plan unless, on the Offering Date, such Employee's customary employment with the Company or the Related Corporation is more than 20 hours per week and more than five months per calendar year or such other criteria as the Board may determine consistent with Section 423 of the Code.

(b) The Board may provide that each person who, during the course of an Offering, first becomes an Eligible Employee will, on a date or dates specified in the Offering which coincides with the day on which such person becomes an Eligible Employee or which occurs thereafter, receive a Purchase Right under that Offering, which Purchase Right will thereafter be deemed to be a part of that Offering. Such Purchase Right will have the same characteristics as any Purchase Rights originally granted under that Offering, as described herein, except that:

(i) the date on which such Purchase Right is granted will be the "Offering Date" of such Purchase Right for all purposes, including determination of the exercise price of such Purchase Right;

(ii) the period of the Offering with respect to such Purchase Right will begin on its Offering Date and end coincident with the end of such Offering; and

(iii) the Board may provide that if such person first becomes an Eligible Employee within a specified period of time before the end of the Offering, he or she will not receive any Purchase Right under that Offering.

(c) No Employee will be eligible for the grant of any Purchase Rights if, immediately after any such Purchase Rights are granted, such Employee owns stock possessing five percent or more of the total combined voting power or value of all classes of stock of the Company or of any Related Corporation. For purposes of this Section 5(c), the rules of Section 424(d) of the Code will apply in determining the stock ownership of any Employee, and stock which such Employee may purchase under all outstanding Purchase Rights and options will be treated as stock owned by such Employee.

(d) As specified by Section 423(b)(8) of the Code, an Eligible Employee may be granted Purchase Rights only if such Purchase Rights, together with any other rights granted under all Employee Stock Purchase Plans of the Company and any Related Corporations, do not permit such Eligible Employee's rights to purchase stock of the Company or any Related Corporation to accrue at a rate which exceeds $25,000 of Fair Market Value of such stock (determined at the time such rights are granted, and which, with respect to the Plan, will be determined as of their respective Offering Dates) for each calendar year in which such rights are outstanding at any time.

(e) Officers of the Company and any designated Related Corporation, if they are otherwise Eligible Employees, will be eligible to participate in Offerings under the Plan. Notwithstanding the foregoing, the Board may provide in an Offering that Employees who are highly compensated Employees within the meaning of Section 423(b)(4)(D) of the Code will not be eligible to participate.

6. PURCHASE RIGHTS; PURCHASE PRICE.

(a) On each Offering Date, each Eligible Employee, pursuant to an Offering made under the Plan, will be granted a Purchase Right to purchase up to that number of shares of Common Stock purchasable either with a percentage or with a maximum dollar amount, as designated by the Board, but in either case not exceeding 15% of such Employee's earnings (as defined by the Board in each Offering) during the period that begins on the Offering Date (or such later date as the Board determines for a particular Offering) and ends on the date stated in the Offering, which date will be no later than the end of the Offering.

(b) The Board will establish one or more Purchase Dates during an Offering on which Purchase Rights granted for that Offering will be exercised and shares of Common Stock will be purchased in accordance with such Offering.

(c) In connection with each Offering made under the Plan, the Board may specify (i) a maximum number of shares of Common Stock that may be purchased by any Participant on any Purchase Date during such Offering, (ii) a maximum aggregate number of shares of Common Stock that may be purchased by all Participants pursuant to such Offering and/or (iii) a maximum aggregate number of shares of Common Stock that may be purchased by all Participants on any Purchase Date under the Offering. If the aggregate purchase of shares of Common Stock issuable upon exercise of Purchase Rights granted under the Offering would exceed any such maximum aggregate number, then, in the absence of any Board action otherwise, a pro rata (based on each Participant's accumulated Contributions) allocation of the shares of Common Stock available will be made in as nearly a uniform manner as will be practicable and equitable.

(d) The purchase price of shares of Common Stock acquired pursuant to Purchase Rights will be not less than the lesser of:

(i) an amount equal to 85% of the Fair Market Value of the shares of Common Stock on the Offering Date; or

(ii) an amount equal to 85% of the Fair Market Value of the shares of Common Stock on the applicable Purchase Date.

7. PARTICIPATION; WITHDRAWAL; TERMINATION.

(a) An Eligible Employee may elect to authorize payroll deductions as the means of making Contributions by completing and delivering to the Company, within the time specified in the Offering, an enrollment form provided by the Company. The enrollment form will specify the amount of Contributions not to exceed the maximum amount specified by the Board. Each Participant's Contributions will be credited to a bookkeeping account for such Participant under the Plan and will be deposited with the general funds of the Company except where applicable law requires that Contributions be deposited with a third party. If permitted in the Offering, a Participant may begin such Contributions with the first payroll occurring on or after the Offering Date (or, in the case of a payroll date that occurs after the end of the prior Offering but before the Offering Date of the next new Offering, Contributions from such payroll will be included in the new Offering). If permitted in the Offering, a Participant may thereafter reduce (including to zero) or increase his or her Contributions. If specifically provided in the Offering, in addition to making Contributions by payroll deductions, a Participant may make Contributions through the payment by cash or check prior to a Purchase Date.

(b) During an Offering, a Participant may cease making Contributions and withdraw from the Offering by delivering to the Company a withdrawal form provided by the Company. The Company may impose a deadline before a Purchase Date for withdrawing. Upon such withdrawal, such Participant's Purchase Right in that Offering will immediately terminate and the Company will distribute to such Participant all of his or her accumulated but unused Contributions and such Participant's Purchase Right in that Offering shall thereupon terminate. A Participant's withdrawal from that Offering will have no effect upon his or her eligibility to participate in any other Offerings under the Plan, but such Participant will be required to deliver a new enrollment form to participate in subsequent Offerings.

(c) Purchase Rights granted pursuant to any Offering under the Plan will terminate immediately if the Participant either (i) is no longer an Employee for any reason or for no reason (subject to any post-employment participation period required by law) or (ii) is otherwise no longer eligible to participate. The Company will distribute to such individual all of his or her accumulated but unused Contributions.

(d) During a Participant's lifetime, Purchase Rights will be exercisable only by such Participant. Purchase Rights are not transferable by a Participant, except by will, by the laws of descent and distribution, or, if permitted by the Company, by a beneficiary designation as described in Section 10.

(e) Unless otherwise specified in the Offering, the Company will have no obligation to pay interest on Contributions.

8. EXERCISE OF PURCHASE RIGHTS.

(a) On each Purchase Date, each Participant's accumulated Contributions will be applied to the purchase of shares of Common Stock, up to the maximum number of shares of Common Stock permitted by the Plan and the applicable Offering, at the purchase price specified in the Offering. No fractional shares will be issued unless specifically provided for in the Offering.

(b) If any amount of accumulated Contributions remains in a Participant's account after the purchase of shares of Common Stock and such remaining amount is less than the amount required to purchase one share of Common Stock on the final Purchase Date of an Offering, then such remaining amount will be held in such Participant's account for the purchase of shares of Common Stock under the next Offering under the Plan, unless such Participant withdraws from or is not eligible to participate in such Offering, in which case such amount will be distributed to such Participant after the final Purchase Date, without interest. If the amount of Contributions remaining in a Participant's account after the purchase of shares of Common Stock is at least equal to the amount required to purchase one whole share of Common Stock on the final Purchase Date of an Offering, then such remaining amount will not roll over to the next Offering and will instead be distributed in full to such Participant after the final Purchase Date of such Offering without interest.

(c) No Purchase Rights may be exercised to any extent unless the shares of Common Stock to be issued upon such exercise under the Plan are covered by an effective registration statement pursuant to the Securities Act and the Plan is in material compliance with all applicable federal, state, foreign and other securities and other laws applicable to the Plan. If on a Purchase Date the shares of Common Stock are not so registered or the Plan is not in such compliance, no Purchase Rights will be exercised on such Purchase Date, and the Purchase Date will be delayed until the shares of Common Stock are subject to such an effective registration statement and the Plan is in material compliance, except that the Purchase Date will in no event be more than 6 months from the Offering Date. If, on the Purchase Date, as delayed to the maximum extent permissible, the shares of Common Stock are not registered and the Plan is not in material compliance with all applicable laws, no Purchase Rights will be exercised and all accumulated but unused Contributions will be distributed to the Participants without interest.

9. COVENANTS OF THE COMPANY.

The Company will seek to obtain from each federal, state, foreign or other regulatory commission or agency having jurisdiction over the Plan such authority as may be required to grant Purchase Rights and issue and sell shares of Common Stock thereunder. If, after commercially reasonable efforts, the Company is unable to obtain the authority that counsel for the Company deems necessary for the grant of Purchase Rights or the lawful issuance and sale of Common Stock under the Plan, and at a commercially reasonable cost, the Company will be relieved from any liability for failure to grant Purchase Rights and/or to issue and sell Common Stock upon exercise of such Purchase Rights.

10. DESIGNATION OF BENEFICIARY.

(a) The Company may, but is not obligated to, permit a Participant to submit a form designating a beneficiary who will receive any shares of Common Stock and/or Contributions from the Participant's account under the Plan if the Participant dies before such shares and/or Contributions are delivered to the Participant. The Company may, but is not obligated to, permit the Participant to change such designation of beneficiary. Any such designation and/or change must be on a form approved by the Company.

(b) If a Participant dies, and in the absence of a valid beneficiary designation, the Company will deliver any shares of Common Stock and/or Contributions to the executor or administrator of the estate of the Participant. If no executor or administrator has been appointed (to the knowledge of the Company), the Company, in its sole discretion, may deliver such shares of Common Stock and/or Contributions to the Participant's spouse, dependents or relatives, or if no spouse, dependent or relative is known to the Company, then to such other person as the Company may designate.

11. ADJUSTMENTS UPON CHANGES IN COMMON STOCK; CORPORATE TRANSACTIONS.

(a) In the event of a Capitalization Adjustment, the Board will appropriately and proportionately adjust: (i) the class(es) and maximum number of securities subject to the Plan pursuant to Section 3(a), (ii) the class(es) and maximum number of securities by which the share reserve is to increase automatically each year pursuant to Section 3(a), (iii) the class(es) and number of securities subject to, and the purchase price applicable to outstanding Offerings and Purchase Rights, and (iv) the class(es) and number of securities that are the subject of the purchase limits under each ongoing Offering. The Board will make these adjustments, and its determination will be final, binding and conclusive.

(b) In the event of a Corporate Transaction, then: (i) any surviving corporation or acquiring corporation (or the surviving or acquiring corporation's parent company) may assume or continue outstanding Purchase Rights or may substitute similar rights (including a right to acquire the same consideration paid to the stockholders in the Corporate Transaction) for outstanding Purchase Rights, or (ii) if any surviving or acquiring corporation (or its parent company) does not assume or continue such Purchase Rights or does not substitute similar rights for such Purchase Rights, then the Participants' accumulated Contributions will be used to purchase shares of Common Stock within ten business days prior to the Corporate Transaction under the outstanding Purchase Rights, and the Purchase Rights will terminate immediately after such purchase.

12. AMENDMENT, TERMINATION OR SUSPENSION OF THE PLAN.

(a) The Board may amend the Plan at any time in any respect the Board deems necessary or advisable. However, except as provided in Section 11(a) relating to Capitalization Adjustments, stockholder approval will be required for any amendment of the Plan for which stockholder approval is required by applicable law or listing requirements, including any amendment that either (i) materially increases the number of shares of Common Stock available for issuance under the Plan, (ii) materially expands the class of individuals eligible to become Participants and receive Purchase Rights, (iii) materially increases the benefits accruing to Participants under the Plan or materially reduces the price at which shares of Common Stock may be purchased under the Plan, (iv) materially extends the term of the Plan, or (v) expands the types of awards available for issuance under the Plan, but in each of (i) through (v) above only to the extent stockholder approval is required by applicable law or listing requirements.

(b) The Board may suspend or terminate the Plan at any time. No Purchase Rights may be granted under the Plan while the Plan is suspended or after it is terminated.

(c) Any benefits, privileges, entitlements and obligations under any outstanding Purchase Rights granted before an amendment, suspension or termination of the Plan will not be materially impaired by any such amendment, suspension or termination except (i) with the consent of the person to whom such Purchase Rights were granted, (ii) as necessary to comply with any laws, listing requirements, or governmental regulations (including, without limitation, the provisions of Section 423 of the Code and the regulations and other interpretive guidance issued thereunder relating to Employee Stock Purchase Plans) including without limitation any such regulations or other guidance that may be issued or amended after the date the Plan is adopted by the Board, or (iii) as necessary to obtain or maintain favorable tax, listing, or regulatory treatment. To be clear, the Board may amend outstanding Purchase Rights without a Participant's consent if such amendment is necessary to ensure that the Purchase Right and/or the Plan complies with the requirements of Section 423 of the Code.

13. EFFECTIVE DATE OF PLAN.

The Plan will become effective immediately prior to and contingent upon the IPO Date. No Purchase Rights will be exercised unless and until the Plan has been approved by the stockholders of the Company, which approval must be within 12 months before or after the date the Plan is adopted (or if required under Section 12(a) above, materially amended) by the Board.

14. MISCELLANEOUS PROVISIONS.

(a) Proceeds from the sale of shares of Common Stock pursuant to Purchase Rights will constitute general funds of the Company.

(b) A Participant will not be deemed to be the holder of, or to have any of the rights of a holder with respect to, shares of Common Stock subject to Purchase Rights unless and until the Participant's shares of Common Stock acquired upon exercise of Purchase Rights are recorded in the books of the Company (or its transfer agent).

(c) The Plan and Offering do not constitute an employment contract. Nothing in the Plan or in the Offering will in any way alter the at will nature of a Participant's employment or be deemed to create in any way whatsoever any obligation on the part of any Participant to continue in the employ of the Company or a Related Corporation, or on the part of the Company or a Related Corporation to continue the employment of a Participant.

(d) The provisions of the Plan will be governed by the laws of the State of California without resort to that state's conflicts of laws rules.

15. DEFINITIONS.

As used in the Plan, the following definitions will apply to the capitalized terms indicated below:

(a) "***Board***" means the Board of Directors of the Company.

(b) "***Capital Stock***" means each and every class of common stock of the Company, regardless of the number of votes per share.

(c) "***Capitalization Adjustment***" means any change that is made in, or other events that occur with respect to, the Common Stock subject to the Plan or subject to any Purchase Right after the date the Plan is adopted by the Board without the receipt of consideration by the Company through merger, consolidation, reorganization, recapitalization, reincorporation, stock dividend, dividend in property other than cash, large nonrecurring cash dividend, stock split, liquidating dividend, combination of shares, exchange of shares, change in corporate structure or other similar equity restructuring transaction, as that term is used in Financial Accounting Standards Board Accounting Standards Codification Topic 718 (or any successor thereto). Notwithstanding the foregoing, the conversion of any convertible securities of the Company will not be treated as a Capitalization Adjustment.

(d) "***Code***" means the Internal Revenue Code of 1986, as amended, including any applicable regulations and guidance thereunder

(e) "***Committee***" means a committee of one or more members of the Board to whom authority has been delegated by the Board in accordance with Section 2(c).

(f) "***Common Stock***" means, as of the IPO Date, the common stock of the Company, having 1 vote per share.

(g) "***Company***" means Atara Biotherapeutics, Inc., a Delaware corporation.

(h) ***"Contributions***" means the payroll deductions and other additional payments specifically provided for in the Offering that a Participant contributes to fund the exercise of a Purchase Right. A Participant may make additional payments into his or her account if specifically provided for in the Offering, and then only if the Participant has not already had the maximum permitted amount withheld during the Offering through payroll deductions.

(i) "***Corporate Transaction***" means the consummation, in a single transaction or in a series of related transactions, of any one or more of the following events:

(i) a sale or other disposition of all or substantially all, as determined by the Board in its sole discretion, of the consolidated assets of the Company and its Subsidiaries;

(ii) a sale or other disposition of at least 90% of the outstanding securities of the Company;

(iii) a merger, consolidation or similar transaction following which the Company is not the surviving corporation; or

(iv) a merger, consolidation or similar transaction following which the Company is the surviving corporation but the shares of Common Stock outstanding immediately preceding the merger, consolidation or similar transaction are converted or exchanged by virtue of the merger, consolidation or similar transaction into other property, whether in the form of securities, cash or otherwise.

(j) "***Director***" means a member of the Board.

(k) "***Eligible Employee***" means an Employee who meets the requirements set forth in the document(s) governing the Offering for eligibility to participate in the Offering, provided that such Employee also meets the requirements for eligibility to participate set forth in the Plan.

(l) "***Employee***" means any person, including an Officer or Director, who is "employed" for purposes of Section 423(b)(4) of the Code by the Company or a Related Corporation. However, service solely as a Director, or payment of a fee for such services, will not cause a Director to be considered an "Employee" for purposes of the Plan.

(m) "***Employee Stock Purchase Plan***" means a plan that grants Purchase Rights intended to be options issued under an "employee stock purchase plan," as that term is defined in Section 423(b) of the Code.

(n) "***Exchange Act***" means the Securities Exchange Act of 1934, as amended and the rules and regulations promulgated thereunder.

(o) "***Fair Market Value***" means, as of any date, the value of the Common Stock determined as follows:

(i) If the Common Stock is listed on any established stock exchange or traded on any established market, the Fair Market Value of a share of Common Stock will be the **closing sales price** for such stock as quoted on such exchange or market (or the exchange or market with the greatest volume of trading in the Common Stock) **on the date of determination**, as reported in such source as the Board deems reliable. Unless otherwise provided by the Board, if there is no closing sales price for the Common Stock on the date of determination, then the Fair Market Value will be the closing sales price on the last preceding date for which such quotation exists.

(ii) In the absence of such markets for the Common Stock, the Fair Market Value will be determined by the Board in good faith in compliance with applicable laws and in a manner that complies with Sections 409A of the Code.

(iii) Notwithstanding the foregoing, for any Offering that commences on the IPO Date, the Fair Market Value of the shares of Common Stock on the Offering Date will be the price per share at which shares are first sold to the public in the Company's initial public offering as specified in the final prospectus for that initial public offering.

(p) "***IPO Date***" means the date of the underwriting agreement between the Company and the underwriter(s) managing the initial public offering of the Common Stock, pursuant to which the Common Stock is priced for the initial public offering.

(q) "***Offering***" means the grant to Eligible Employees of Purchase Rights, with the exercise of those Purchase Rights automatically occurring at the end of one or more Purchase Periods. The terms and conditions of an Offering will generally be set forth in the "***Offering Document***" approved by the Board for that Offering.

(r) "***Offering Date***" means a date selected by the Board for an Offering to commence.

(s) "***Officer***" means a person who is an officer of the Company or a Related Corporation within the meaning of Section 16 of the Exchange Act.

(t) "***Participant***" means an Eligible Employee who holds an outstanding Purchase Right.

(u) "***Plan***" means this Atara Biotherapeutics, Inc. 2014 Employee Stock Purchase Plan.

(v) "***Purchase Date***" means one or more dates during an Offering selected by the Board on which Purchase Rights will be exercised and on which purchases of shares of Common Stock will be carried out in accordance with such Offering.

(w) "***Purchase Period***" means a period of time specified within an Offering, generally beginning on the Offering Date or on the first Trading Day following a Purchase Date, and ending on a Purchase Date. An Offering may consist of one or more Purchase Periods.

(x) "***Purchase Right***" means an option to purchase shares of Common Stock granted pursuant to the Plan.

(y) "***Related Corporation***" means any "parent corporation" or "subsidiary corporation" of the Company whether now or subsequently established, as those terms are defined in Sections 424(e) and (f), respectively, of the Code.

(z) "***Securities Act***" means the Securities Act of 1933, as amended.

(aa) "***Trading Day***" means any day on which the exchange(s) or market(s) on which shares of Common Stock are listed, including but not limited to the NYSE, Nasdaq Global Select Market, the Nasdaq Global Market, the Nasdaq Capital Market or any successors thereto, is open for trading.

Exhibit 10.9

ATARA BIOTHERAPEUTICS, INC.

INDEMNIFICATION AGREEMENT

THIS INDEMNIFICATION AGREEMENT ("***Agreement***") is effective as of , 2014, by and between **ATARA BIOTHERAPEUTICS, INC.**, a Delaware corporation (the "***Company***"), and ("***Indemnitee***").

RECITALS

A. The Company desires to attract and retain the services of highly qualified individuals, such as Indemnitee, to serve the Company and its related entities.

B. In order to induce Indemnitee to continue to provide services to the Company, the Company wishes to provide for the indemnification of, and the advancement of expenses to, Indemnitee to the maximum extent permitted by law.

C. The Company and Indemnitee recognize the continued difficulty in obtaining liability insurance for the Company's directors, officers, employees, agents and fiduciaries, the significant increases in the cost of such insurance and the general reductions in the coverage of such insurance.

D. Indemnitee does not regard the protection available under the Company's Bylaws and insurance as adequate in the present circumstances, and may not be willing to serve as an officer or director without adequate protection, and the Company desires Indemnitee to serve in such capacity.

E. The Company and Indemnitee further recognize the substantial increase in corporate litigation in general, subjecting directors, officers, employees, agents and fiduciaries to expensive litigation risks at the same time as the availability and coverage of liability insurance has been severely limited.

F. In view of the considerations set forth above, the Company desires that Indemnitee shall be indemnified and advanced expenses by the Company as set forth in this Agreement.

G. Indemnitee may have certain rights to indemnification and/or insurance provided by one or more other entities and/or organizations, which Indemnitee and the Company intend to be secondary to the primary obligation of the Company to indemnify Indemnitee as provided herein, with the Company's acknowledgement and agreement to the foregoing being a material condition to Indemnitee's willingness to serve on the Board of Directors of the Company.

AGREEMENT

The parties agree as follows:

1. DEFINITIONS.

(a) "***Change in Control***" means, and will be deemed to have occurred if, on or after the date of this Agreement, (i) any "person" (as such term is used in Sections 13(d) and 14(d) of the Securities Exchange Act of 1934, as amended), other than a trustee or other fiduciary holding securities under an employee benefit plan of the Company acting in such capacity or a corporation owned directly or indirectly by the stockholders of the Company in substantially the same proportions as their ownership of stock of the Company, becomes the "beneficial owner" (as defined in Rule 13d-3 under said Act),

directly or indirectly, of securities of the Company representing more than 50% of the total voting power represented by the Company's then outstanding Voting Securities (as defined below), (ii) during any period of two consecutive years, individuals who at the beginning of such period constitute the Board of Directors of the Company and any new director whose election by the Board of Directors or nomination for election by the Company's stockholders was approved by a vote of at least two-thirds of the directors then still in office who either were directors at the beginning of the period or whose election or nomination for election was previously so approved, cease for any reason to constitute a majority thereof, or (iii) the stockholders of the Company approve a merger or consolidation of the Company with any other corporation other than a merger or consolidation that would result in the Voting Securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into Voting Securities of the surviving entity) at least 80% of the total voting power represented by the Voting Securities of the Company or such surviving entity outstanding immediately after such merger or consolidation, or the stockholders of the Company approve a plan of complete liquidation of the Company or an agreement for the sale or disposition by the Company of (in one transaction or a series of related transactions) all or substantially all of the Company's assets.

(b) "***Claim***" means, with respect to a Covered Event (as defined below), any threatened, pending or completed action, suit, proceeding or alternative dispute resolution mechanism, or any hearing, inquiry or investigation that Indemnitee in good faith believes might lead to the institution of any such action, suit, proceeding or alternative dispute resolution mechanism, whether civil, criminal, administrative, investigative or other and whether brought in the right of or by the Company or otherwise.

(c) References to the "***Company***" include, in addition to Atara Biotherapeutics, Inc., Nina Biotherapeutics, Inc., Pinta Biotherapeutics, Inc. and Santa Maria Biotherapeutics, Inc. and any other constituent corporation (including any constituent of a constituent) absorbed in a consolidation or merger to which Atara Biotherapeutics, Inc. (or any of its wholly owned subsidiaries) is a party, that, if its separate existence had continued, would have had power and authority to indemnify its directors, officers, employees, agents or fiduciaries, so that if Indemnitee is or was a director, officer, employee, agent or fiduciary of such constituent corporation, or is or was serving at the request of such constituent corporation as a director, officer, employee, agent or fiduciary of another corporation, partnership, joint venture, employee benefit plan, trust or other enterprise, Indemnitee will stand in the same position under the provisions of this Agreement with respect to the resulting or surviving corporation as Indemnitee would have with respect to such constituent corporation if its separate existence had continued.

(d) "***Covered Event***" means any event or occurrence (i) related to the fact that Indemnitee is or was a director, officer, employee, agent or fiduciary of the Company, or any subsidiary of the Company or (ii) related to the fact that Indemnitee is or was serving at the request of the Company as a director, officer, employee, agent or fiduciary of another corporation, partnership, joint venture, trust or other enterprise, or by reason of any action or inaction on the part of Indemnitee while serving in such capacity.

(e) "***Expenses***" means any and all expenses (including attorneys' fees and all other costs, expenses and obligations incurred in connection with investigating, defending, being a witness in or participating in (including on appeal), or preparing to defend, to be a witness in or to participate in, any action, suit, proceeding, alternative dispute resolution mechanism, hearing, inquiry or investigation), judgments, fines, penalties and amounts paid in settlement (if such settlement is approved in advance by the Company, which approval will not be unreasonably withheld), actually and reasonably incurred, of any Claim and any federal, state, local or foreign taxes imposed on the Indemnitee as a result of the actual or deemed receipt of any payments under this Agreement.

(f) "***Expense Advance***" means a payment to Indemnitee pursuant to Section 3 of Expenses in advance of the settlement of or final judgment in any action, suit, proceeding or alternative dispute resolution mechanism, hearing, inquiry or investigation that constitutes a Claim.

(g) "***Independent Legal Counsel***" means an attorney or firm of attorneys, selected in accordance with the provisions of Section 2(d) hereof, who will not have otherwise performed services for the Company or Indemnitee within the last three years (other than with respect to matters concerning the rights of Indemnitee under this Agreement, or of other indemnitees under similar indemnity agreements).

(h) References to "***other enterprises***" include employee benefit plans; references to "***fines***" include any excise taxes assessed on Indemnitee with respect to an employee benefit plan; and references to "***serving at the request of the Company***" include any service as a director, officer, employee, agent or fiduciary of the Company, which role imposes duties on, or involves services by, such director, officer, employee, agent or fiduciary with respect to an employee benefit plan, its participants or its beneficiaries; and if Indemnitee acted in good faith and in a manner Indemnitee reasonably believed to be in the interest of the participants and beneficiaries of an employee benefit plan, Indemnitee will be deemed to have acted in a manner "***not opposed to the best interests of the Company***" as referred to in this Agreement.

(i) "***Reviewing Party***" means, subject to the provisions of Section 2(d), any person or body appointed by the Board of Directors in accordance with applicable law to review the Company's obligations hereunder and under applicable law, which may include (i) the directors who are not parties to the action, suit or proceeding in question ("***Disinterested Directors***"), even if less than a quorum, (ii) a committee of Disinterested Directors designated by a vote of the majority of the Disinterested Directors, even if less than a quorum, (iii), by Independent Legal Counsel, if there are no such Disinterested Directors, or if such Disinterested Directors so direct or (iv) by the stockholders.

(j) "***Section***" refers to a section of this Agreement unless otherwise indicated.

(k) "***Voting Securities***" means any securities of the Company that vote generally in the election of directors.

2. INDEMNIFICATION.

(a) Indemnification of Expenses. Subject to the provisions of Section 2(b) below, the Company shall indemnify Indemnitee for Expenses to the fullest extent permitted by law if Indemnitee was or is or becomes a party to or witness or other participant in, or is threatened to be made a party to or witness or other participant in, any Claim (whether by reason of or arising in part out of a Covered Event), including all interest, assessments and other charges paid or payable in connection with or in respect of such Expenses.

(b) Review of Indemnification Obligations. Notwithstanding the foregoing, upon written request for indemnification pursuant to Section 4(b), a determination with respect to Indemnitee's entitlement thereto shall be determined by a Reviewing Party selected pursuant to Section 2(d). In the event any Reviewing Party will have determined (in a written opinion, in any case in which Independent Legal Counsel is the Reviewing Party) that Indemnitee is not entitled to be indemnified hereunder under applicable law, (i) the Company shall have no further obligation under Section 2(a) to make any payments to Indemnitee not made prior to such determination by such Reviewing Party, and (ii) the Company shall be entitled to be reimbursed by Indemnitee (who hereby agrees to reimburse the Company) for all Expenses theretofore paid in indemnifying Indemnitee; *provided, however*, that if Indemnitee has

commenced or thereafter commences legal proceedings in a court of competent jurisdiction to secure a determination that Indemnitee is entitled to be indemnified hereunder under applicable law, any determination made by any Reviewing Party that Indemnitee is not entitled to be indemnified hereunder under applicable law will not be binding and Indemnitee shall not be required to reimburse the Company for any Expenses theretofore paid in indemnifying Indemnitee until a final judicial determination is made with respect thereto (as to which all rights of appeal therefrom have been exhausted or lapsed). Indemnitee's obligation to reimburse the Company for any Expenses will be unsecured and no interest will be charged thereon.

(c) Indemnitee Rights on Unfavorable Determination; Binding Effect. If any Reviewing Party determines that Indemnitee is not entitled to be indemnified hereunder in whole or in part under applicable law, Indemnitee shall have the right to commence litigation seeking an initial determination by the court or challenging any such determination by such Reviewing Party or any aspect thereof, including the legal or factual bases therefor, and, subject to the provisions of Section 15, the Company hereby consents to service of process and to appear in any such proceeding. Absent such litigation, any determination by any Reviewing Party will be conclusive and binding on the Company and Indemnitee.

(d) Selection of Reviewing Party; Change in Control. If there has not been a Change in Control, any Reviewing Party will be selected by the Board of Directors and approved by the Indemnitee (which approval will not be unreasonably withheld). If the Board chooses to utilize an Independent Legal Counsel as the Reviewing Party, the Independent Legal Counsel will be chosen by the Company and approved by the Indemnitee (which approval will not be unreasonably withheld). If there has been such a Change in Control (other than a Change in Control that has been approved by a majority of the Company's Board of Directors who were directors immediately prior to such Change in Control), any Reviewing Party with respect to all matters thereafter arising concerning the rights of Indemnitee to indemnification of Expenses under this Agreement or any other agreement or under the Company's certificate of incorporation or bylaws as now or hereafter in effect, or under any other applicable law, if desired by Indemnitee, will be Independent Legal Counsel selected by Indemnitee and approved by the Company (which approval shall not be unreasonably withheld). Such counsel, among other things, will render its written opinion to the Company and Indemnitee as to whether and to what extent Indemnitee would be entitled to be indemnified hereunder under applicable law and the Company agrees to abide by such opinion. The Company agrees to pay the reasonable fees of the Independent Legal Counsel referred to above and to indemnify fully such counsel against any and all expenses (including attorneys' fees), claims, liabilities and damages arising out of or relating to this Agreement or its engagement pursuant hereto. Notwithstanding any other provision of this Agreement, the Company shall not be required to pay Expenses of more than one Independent Legal Counsel in connection with all matters concerning a single Indemnitee, and such Independent Legal Counsel shall be the Independent Legal Counsel for any or all other Indemnitees unless (i) the Company otherwise determines or (ii) any Indemnitee shall provide a written statement setting forth in detail a reasonable objection to such Independent Legal Counsel representing other Indemnitees.

(e) Mandatory Payment of Expenses. Notwithstanding any other provision of this Agreement other than Section 10 hereof, to the extent that Indemnitee has been successful on the merits or otherwise, including, without limitation, the dismissal of an action without prejudice, in defense of any Claim, Company shall indemnify Indemnitee against all Expenses incurred by Indemnitee in connection therewith.

3. EXPENSE ADVANCES.

(a) Obligation to Make Expense Advances. The Company will make Expense Advances to Indemnitee upon receipt of a written undertaking by or on behalf of the Indemnitee to repay such amounts if it is ultimately determined that the Indemnitee is not entitled to be indemnified therefor by the Company.

(b) Form of Undertaking. Any written undertaking by the Indemnitee to repay any Expense Advances hereunder will be unsecured, and no interest shall be charged thereon.

4. PROCEDURES FOR INDEMNIFICATION AND EXPENSE ADVANCES.

(a) Timing of Payments. All payments of Expenses (including without limitation Expense Advances) by the Company to the Indemnitee pursuant to this Agreement will be made to the fullest extent permitted by law as soon as practicable after written demand by Indemnitee therefor is presented to the Company, but in no event later than 30 days after such written demand by Indemnitee is presented to the Company, except in the case of Expense Advances, which will be made no later than 20 days after such written demand by Indemnitee is presented to the Company.

(b) Notice/Cooperation by Indemnitee. Indemnitee shall, as a condition precedent to Indemnitee's right to be indemnified or Indemnitee's right to receive Expense Advances under this Agreement, give the Company notice in writing as soon as practicable of any Claim made against Indemnitee for which indemnification will or could be sought under this Agreement. Notice to the Company will be directed to the President or Chief Executive Officer of the Company at the address shown on the signature page of this Agreement (or such other address as the Company shall designate in writing to Indemnitee). In addition, Indemnitee will give the Company such information and cooperation as it may reasonably require and as shall be within Indemnitee's power. The failure by Indemnitee to timely notify the Company of any Claim will not relieve the Company from any liability hereunder unless, and only to the extent that such failure results in forfeiture by the Company of substantial defenses, rights, or insurance coverage.

(c) Timing of Indemnification Determination. The Company will use its reasonable best efforts to cause any determination by a Reviewing Party to be made as promptly as practicable. If the Reviewing Party shall not have made a determination within 60 days after the later of (A) receipt by the Company of written notice from Indemnitee advising the Company of the final disposition of the applicable Covered Event and (B) the selection of an Independent Counsel, if such determination is to be made by Independent Counsel, then Indemnitee shall be deemed to have satisfied the applicable standard of conduct absent (i) a misstatement by Indemnitee of a material fact, or an omission of a material fact necessary to make Indemnitee's statement not materially misleading, in connection with the request for indemnification, or (ii) a prohibition of such indemnification under applicable law; *provided, however*, that such 60-day period may be extended for a reasonable time, not to exceed (1) an additional 30 days, if the person, persons or entity making such determination with respect to entitlement to indemnification in good faith requires such additional time to obtain or evaluate documentation and/or information relating thereto or (2) an additional 75 days, if the Reviewing Party will be the stockholders of the Company.

(d) No Presumptions; Burden of Proof. For purposes of this Agreement, the termination of any Claim by judgment, order, settlement (whether with or without court approval) or conviction, or upon a plea of *nolo contendere*, or its equivalent, will not create a presumption that Indemnitee did not meet any particular standard of conduct or have any particular belief or that a court has determined that indemnification is not permitted by this Agreement or applicable law. In addition,

neither the failure of any Reviewing Party to have made a determination as to whether Indemnitee has met any particular standard of conduct or had any particular belief, nor an actual determination by any Reviewing Party that Indemnitee has not met such standard of conduct or did not have such belief, prior to the commencement of legal proceedings by Indemnitee to secure a judicial determination that Indemnitee should be indemnified under this Agreement or applicable law, shall be a defense to Indemnitee's claim or create a presumption that Indemnitee has not met any particular standard of conduct or did not have any particular belief. In connection with any determination by any Reviewing Party or otherwise as to whether the Indemnitee is entitled to be indemnified hereunder, the burden of proof will be on the Company to establish that Indemnitee is not so entitled.

(e) Notice to Insurers. If, at the time of the receipt by the Company of a notice of a Claim pursuant to Section (b) hereof, the Company has liability insurance in effect that may cover such Claim, the Company shall give prompt notice of the commencement of such Claim to the insurers in accordance with the procedures set forth in the respective policies. The Company shall thereafter take all necessary or desirable action to cause such insurers to pay, on behalf of the Indemnitee, all amounts payable as a result of such Claim in accordance with the terms of such policies; *provided, however*, that nothing in this subsection (e) shall relieve the Company of its obligations hereunder (or allow the Company to delay in its performance of its obligations hereunder) to provide indemnification for or make any Expense Advances with respect to the Expenses of any Claim, between the time that it so notifies its insurers and the time that its insurers actually pay any such amounts payable as a result of any such Claim to the Company.

(f) Selection of Counsel. In the event the Company shall be obligated hereunder to provide indemnification for or make any Expense Advances with respect to the Expenses of any Claim, the Company, if appropriate, shall be entitled to assume the defense of such Claim with counsel approved by Indemnitee (which approval shall not be unreasonably withheld) upon the delivery to Indemnitee of written notice of the Company's election to do so. After delivery of such notice, approval of such counsel by Indemnitee and the retention of such counsel by the Company, the Company will not be liable to Indemnitee under this Agreement for any fees or expenses of separate counsel subsequently employed by or on behalf of Indemnitee with respect to the same Claim; *provided, however*, that (i) Indemnitee shall have the right to employ Indemnitee's separate counsel in any such Claim at Indemnitee's expense and (ii) if (A) the employment of separate counsel by Indemnitee has been previously authorized by the Company, (B) Indemnitee shall have reasonably concluded that there may be a conflict of interest between the Company and Indemnitee in the conduct of any such defense, or (C) the Company shall not continue to retain such counsel to defend such Claim, then the fees and expenses of Indemnitee's separate counsel will be Expenses for which Indemnitee may receive indemnification or Expense Advances hereunder. The Company shall not be liable to Indemnitee under this Agreement for any amounts paid in settlement of any threatened or pending Claim effected without the Company's prior written consent. The Company shall not, without the prior written consent of the Indemnitee, effect any settlement of any threatened or pending Claim which the Indemnitee is or could have been a party unless such settlement solely involves the payment of money and includes a complete and unconditional release of the Indemnitee from all liability on any claims that are the subject matter of such Claim. Neither the Company nor Indemnitee shall unreasonably withhold its consent to any proposed settlement; *provided* that Indemnitee may withhold consent to any settlement that does not provide a complete and unconditional release of Indemnitee.

5. ADDITIONAL INDEMNIFICATION RIGHTS; NONEXCLUSIVITY.

(a) Scope. The Company hereby agrees to indemnify the Indemnitee to the fullest extent permitted by law, notwithstanding that such indemnification is not specifically authorized by the other provisions of this Agreement, the Company's Certificate of Incorporation, the Company's Bylaws

or by statute. In the event of any change after the date of this Agreement in any applicable law, statute or rule that expands the right of a Delaware corporation to indemnify a member of its board of directors or an officer, employee, agent or fiduciary, it is the intent of the parties hereto that Indemnitee shall enjoy by this Agreement the greater benefits afforded by such change. In the event of any change in any applicable law, statute or rule that narrows the right of a Delaware corporation to indemnify a member of its board of directors or an officer, employee, agent or fiduciary, such change, to the extent not otherwise required by such law, statute or rule to be applied to this Agreement, will have no effect on this Agreement or the parties' rights and obligations hereunder except as set forth in Section 10(a) hereof.

(b) Nonexclusivity. The indemnification and the payment of Expense Advances provided by this Agreement will be in addition to any rights to which Indemnitee may be entitled under the Company's certificate of incorporation, its bylaws, any other agreement, any vote of stockholders or disinterested directors, the Delaware General Corporation Law, or otherwise. The indemnification and the payment of Expense Advances provided under this Agreement will continue as to Indemnitee for any action taken or not taken while serving in an indemnified capacity even though subsequent thereto Indemnitee may have ceased to serve in such capacity.

(c) Company Obligations Primary. The Company hereby acknowledges that Indemnitee may have certain rights to indemnification, advancement of expenses and/or insurance provided by one or more other entities and/or organizations (collectively, the "***Secondary Indemnitors***"). The Company hereby agrees that (i) it is the indemnitor of first resort (i.e., its obligations to Indemnitee are primary and any obligation of the Secondary Indemnitors to advance expenses or to provide indemnification for the same Expenses or liabilities incurred by Indemnitee are secondary), (ii) it will be required to advance the full amount of Expenses incurred by Indemnitee and will be liable for the full amount of all Expenses, judgments, penalties, fines and amounts paid in settlement to the extent legally permitted and as required by the Certificate of Incorporation or Bylaws of the Company (or any agreement between the Company and Indemnitee), without regard to any rights Indemnitee may have against the Secondary Indemnitors and (iii) it irrevocably waives relinquishes and releases the Secondary Indemnitors from any and all claims against the Secondary Indemnitors for contribution, subrogation or any other recovery of any kind in respect thereof. The Company further agrees that no advancement or payment by the Secondary Indemnitors on behalf of Indemnitee with respect to any claim for which Indemnitee has sought indemnification from the Company will affect the foregoing and the Secondary Indemnitors will have a right of contribution and/or be subrogated to the extent of such advancement or payment to all of the rights of recovery of Indemnitee against the Company. The Company and Indemnitee agree that the Secondary Indemnitors are express third party beneficiaries of the terms hereof.

6. NO DUPLICATION OF PAYMENTS. Subject to Section 5(c) above,the Company will not be liable under this Agreement to make any payment in connection with any Claim made against Indemnitee to the extent Indemnitee has otherwise actually received payment (under any insurance policy, provision of the Company's certificate of incorporation, bylaws or otherwise) of the amounts otherwise payable under this Agreement.

7. PARTIAL INDEMNIFICATION. If Indemnitee is entitled under any provision of this Agreement to indemnification by the Company for some or a portion of Expenses incurred in connection with any Claim, but not, however, for all of the total amount thereof, the Company will indemnify Indemnitee for the portion of such Expenses to which Indemnitee is entitled.

8. MUTUAL ACKNOWLEDGMENT. Both the Company and Indemnitee acknowledge that in certain instances, federal law or applicable public policy may prohibit the Company from indemnifying its directors, officers, employees, agents or fiduciaries under this Agreement or otherwise. Indemnitee understands and acknowledges that the Company has undertaken or may be required in the future to

undertake with the Securities and Exchange Commission to submit the question of indemnification to a court in certain circumstances for a determination of the Company's right under public policy to indemnify Indemnitee.

9. LIABILITY INSURANCE. The Company shall obtain and maintain during the term of this Agreement liability insurance applicable to directors, officers or fiduciaries in an amount determined by the Company's board of directors; *provided, however*, that nothing in this Section 9 shall relieve the Company of its obligations hereunder (or allow the Company to delay in its performance of its obligations hereunder) to provide indemnification for or make any Expense Advances with respect to the Expenses of any Claim. To the extent the Company maintains liability insurance applicable to directors, officers or fiduciaries, Indemnitee shall be covered by such policies in such a manner as to provide Indemnitee the same rights and benefits as are provided to the most favorably insured of the Company's directors, if Indemnitee is a director; or of the Company's officers, if Indemnitee is not a director of the Company but is an officer. The Company shall promptly notify Indemnitee of any expiration, lapse, non-renewal or denial of coverage under any such policy.

10. EXCEPTIONS.

(a) Excluded Action or Omissions. The Company will not indemnify Indemnitee for Expenses resulting from acts, omissions or transactions for which Indemnitee is prohibited from receiving indemnification under this Agreement or applicable law; *provided, however*, that notwithstanding any limitation set forth in this subsection (a) regarding the Company's obligation to provide indemnification, Indemnitee will be entitled under Section 3 to receive Expense Advances hereunder with respect to any such Claim unless and until a court having jurisdiction over the Claim will have made a final judicial determination (as to which all rights of appeal therefrom have been exhausted or lapsed) that Indemnitee has engaged in acts, omissions or transactions for which Indemnitee is prohibited from receiving indemnification under this Agreement or applicable law.

(b) Claims Initiated by Indemnitee. The Company will not indemnify or make Expense Advances to Indemnitee with respect to Claims initiated or brought voluntarily by Indemnitee and not by way of defense, counterclaim or cross claim, except (i) with respect to actions or proceedings brought to establish or enforce a right to indemnification under this Agreement or any other agreement or insurance policy or under the Company's certificate of incorporation or bylaws now or hereafter in effect relating to Claims for Covered Events, (ii) in specific cases if the Board of Directors has approved the initiation or bringing of such Claim, or (iii) as otherwise required under Section 145 of the Delaware General Corporation Law (relating to indemnification of officers, directors, employees and agents; and insurance), regardless of whether Indemnitee ultimately is determined to be entitled to such indemnification or insurance recovery, as the case may be.

(c) Lack of Good Faith. The Company will not indemnify Indemnitee for any Expenses incurred by the Indemnitee with respect to any action in which the Indemnitee has been finally adjudged by a court having jurisdiction in the matter (i) to have acted in bad faith; (ii) to not have acted in a manner Indemnitee reasonably believed to be in the best interests of the Company; or (iii) with respect to criminal actions or proceedings, to have had reasonable cause to believe Indemnitee's conduct was unlawful.

(d) Claims Under Section 16(b). The Company will not indemnify Indemnitee for Expenses and the payment of profits arising from the purchase and sale by Indemnitee of securities in violation of Section 16(b) of the Securities Exchange Act of 1934, as amended, or any similar successor statute; *provided, however*, that notwithstanding any limitation set forth in this subsection (d) regarding the Company's obligation to provide indemnification, Indemnitee shall be entitled under Section 3 to

receive Expense Advances hereunder with respect to any such Claim unless and until a court having jurisdiction over the Claim will have made a final judicial determination (as to which all rights of appeal therefrom have been exhausted or lapsed) that Indemnitee has violated said statute.

(e) Clawback Under Sarbanes-Oxley Act. The Company will not indemnify Indemnitee in connection with any Claim for reimbursement of the Company by Indemnitee of any bonus or other incentive-based or equity-based compensation or of any profits realized by Indemnitee from the sale of securities of the Company, as required in each case under the Securities Exchange Act of 1934, as amended (including any such reimbursements that arise from an accounting restatement of the Company pursuant to Section 304 of the Sarbanes-Oxley Act of 2002 (the "***Sarbanes-Oxley Act***"), or the payment to the Company of profits arising from the purchase and sale by Indemnitee of securities in violation of Section 306 of the Sarbanes-Oxley Act), if Indemnitee is held liable therefor (including pursuant to any settlement).

11. COUNTERPARTS. This Agreement may be executed in one or more counterparts, each of which will be an original, but all of which together will constitute one instrument.

12. BINDING EFFECT; SUCCESSORS AND ASSIGNS. This Agreement will be binding upon and inure to the benefit of and be enforceable by the parties hereto and their respective successors, assigns (including any direct or indirect successor by purchase, merger, consolidation or otherwise to all or substantially all of the business or assets of the Company), spouses, heirs and personal and legal representatives. The Company shall require and cause any successor (whether direct or indirect, and whether by purchase, merger, consolidation or otherwise) to all, substantially all, or a substantial part, of the business or assets of the Company, by written agreement in form and substance satisfactory to Indemnitee, expressly to assume and agree to perform this Agreement in the same manner and to the same extent that the Company would be required to perform if no such succession had taken place. This Agreement will continue in effect regardless of whether Indemnitee continues to serve as a director, officer, employee, agent or fiduciary (as applicable) of the Company or of any other enterprise at the Company's request, but only with respect to Covered Events.

13. EXPENSES INCURRED IN ACTION RELATING TO ENFORCEMENT OR INTERPRETATION. In the event that any action is instituted by Indemnitee under this Agreement or under any liability insurance policies maintained by the Company to enforce or interpret any of the terms hereof or thereof, Indemnitee shall be entitled to be indemnified for all Expenses incurred by Indemnitee with respect to such action (including without limitation attorneys' fees), regardless of whether Indemnitee is ultimately successful in such action, unless as a part of such action a court having jurisdiction over such action makes a final judicial determination (as to which all rights of appeal therefrom have been exhausted or lapsed) that each of the material assertions made by Indemnitee as a basis for such action was not made in good faith or was frivolous; *provided, however*, that until such final judicial determination is made, Indemnitee shall be entitled under Section 3 to receive payment of Expense Advances hereunder with respect to such action. In the event of an action instituted by or in the name of the Company under this Agreement to enforce or interpret any of the terms of this Agreement, Indemnitee shall be entitled to be indemnified for all Expenses incurred by Indemnitee in defense of such action (including without limitation costs and expenses incurred with respect to Indemnitee's counterclaims and cross-claims made in such action), unless as a part of such action a court having jurisdiction over such action makes a final judicial determination (as to which all rights of appeal therefrom have been exhausted or lapsed) that each of the material defenses asserted by Indemnitee in such action was made in bad faith or was frivolous; *provided, however*, that until such final judicial determination is made, Indemnitee shall be entitled under Section 3 to receive payment of Expense Advances hereunder with respect to such action.

14. NOTICES. All notices required or permitted hereunder shall be in writing and shall be deemed effectively given: (a) upon personal delivery to the party to be notified, (b) when sent by confirmed electronic mail or facsimile if sent during normal business hours of the recipient; if not, then on the next business day, (c) five days after having been sent by registered or certified mail, return receipt requested, postage prepaid, or (d) one day after deposit with a nationally recognized overnight courier, specifying next day delivery, with written verification of receipt. Addresses for notice to either party are as shown on the signature page of this Agreement or as subsequently modified by written notice.

15. CONSENT TO JURISDICTION. The Company and Indemnitee each hereby irrevocably consent to the jurisdiction of the courts of the State of Delaware for all purposes in connection with any action or proceeding which arises out of or relates to this Agreement and agree that any action instituted under this Agreement will be commenced, prosecuted and continued only in the Court of Chancery of the State of Delaware in and for New Castle County, which will be the exclusive and only proper forum for adjudicating such a claim.

16. CHOICE OF LAW. This Agreement will be governed by and construed under the laws of the State of Delaware in all respects as such laws are applied to agreements among Delaware residents entered into and performed entirely within Delaware, without giving effect to conflict of law principles thereof.

17. SEVERABILITY. In the event one or more of the provisions of this Agreement should, for any reason, be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability will not affect any other provisions of this Agreement, and this Agreement will be construed as if such invalid, illegal or unenforceable provision had never been contained herein.

18. SUBROGATION. Subject to Section 5(c) above, in the event of payment under this Agreement, the Company shall be subrogated to the extent of such payment to all of the rights of recovery of Indemnitee, who shall execute all documents required and shall do all acts that may be necessary to secure such rights and to enable the Company effectively to bring suit to enforce such rights.

19. AMENDMENT AND WAIVER. No amendment, modification, termination or cancellation of this Agreement will be effective unless it is in writing signed by both the parties hereto. No waiver of any of the provisions of this Agreement will be deemed to be or will constitute a waiver of any other provisions hereof (whether or not similar), nor will such waiver constitute a continuing waiver.

20. INTEGRATION; ENTIRE AGREEMENT. This Agreement sets forth the entire understanding between the parties hereto and supersedes and merges all previous written and oral negotiations, commitments, understandings and agreements between the parties relating to the subject matter contained in this Agreement.

21. HEADINGS. The section and subsection headings contained in this Agreement are for reference purposes only and will not affect in any way the meaning or interpretation of this Agreement.

22. NO CONSTRUCTION AS EMPLOYMENT AGREEMENT. Nothing contained in this Agreement will be construed as giving Indemnitee any right to be retained in the employ of the Company or any of its subsidiaries or affiliated entities.

The parties have executed this Indemnification Agreement as of the date first above written.

ATARA BIOTHERAPEUTICS, INC.

By: _____

Name: _____

Title: _____

Agreed to and accepted by:

INDEMNITEE:

_____

Signature of Indemnitee

_____

Print or Type Name of Indemnitee

Address: _____

_____

Exhibit 10.10

ATARA BIOTHERAPEUTICS, INC.

EMPLOYMENT AGREEMENT

This Employment Agreement (the "**Agreement**") is made and entered into as of March 31, 2014, by and between Atara Biotherapeutics. Inc., a Delaware corporation (the "**Company**") and Isaac Ciechanover, M.D. ("**Executive**"). From and following the date hereof, this Agreement shall replace and supersede that certain letter agreement between the. Company and Executive dated September 6, 2012, as amended on October 22, 2012, and as further amended on December 5, 2012 (the "**Prior Agreement**").

RECITALS

WHEREAS, the Company and Executive are currently parties to the Prior Agreement and wish to enter into this Agreement as set forth herein in connection with a share exchange, pursuant to which each of Nina Biotherapeutics, Inc., Pinta Biotherapeutics, Inc. and Santa Maria Biotherapeutics, Inc. (each a "**Project Entity**") shall become wholly-owned subsidiaries of the Company (the "**Share Exchange**");

NOW THEREFORE, in consideration of the mutual promises and covenants contained herein and certain other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged. the parties agree as follows:

AGREEMENT

1. **Duties and Scope of Employment**. Executive will remain employed as the Company's Chief Executive Officer, reporting to the Company's Board of Directors. This is a full-time position. While Executive renders services to the Company, Executive will not engage in any other employment, consulting or other business activity (whether full-time or part-time) that would create a conflict of interest with the Company. By signing this Agreement, Executive reaffirms to the Company that Executive has no contractual commitments or other legal obligations that would prohibit Executive from performing his duties for the Company. Subject to the approval of the Company's Board of Directors (the "**Board**") (which approval shall not be unreasonably withheld), Executive may elect to serve as a member of the board of directors of other entities during Executive's employment with the Company, provided, that such service does not interfere with the performance of Executive's duties for the Company or create a conflict of interest with the Company.

2. **Cash Compensation**. The Company will pay Executive a base salary at a rate of $381,100 per year (the "**Base Salary**"), payable in accordance with the Company's standard payroll schedule. This salary will be subject to upward adjustment pursuant to the. Company's employee compensation policies in effect from time to time Executive will also be entitled to a payment at the beginning of each month in an amount equal to $4,800 (the "**Monthly Bonus**"), which amount may be adjusted (as Executive and the Company may agree) as additional information is obtained and can be used by Executive to cover certain additional expenses. in addition, Executive will be eligible to be considered for an incentive bonus for each fiscal year of the Company. Executive's target bonus will be equal to 35% of the Base Salary, and the applicable annual milestones for each fiscal year will be established mutually by Executive and the Company's Board of Directors within 45 days following the start of the fiscal year Any bonus earned for a fiscal year will be paid within 2 1/2 months after the close of that fiscal year. The determinations of the Company's Board of Directors with respect to Executive's bonus will be final and binding.

3. **Employee Benefits**. The Company's payroll and other human resource management services will continue to be provided through TriNet Employer Group, Inc. ("**TriNet**"), a professional employer organization. As a result of the Company's arrangement with TriNet, TriNet will be considered Executive's "employer of record" for these purposes. In addition, Executive will be entitled to paid time off in accordance with the Company's paid time off policy, as in effect from time to time.

4. **Equity Compensation**.

(a) **Prior Awards**. Executive currently holds 1,386,000 shares of the Company's common stock (post Share Exchange), which were issued pursuant to the terms of certain Stock Purchase Agreements originally entered into between Executive and each Project Entity (each, a "**Share Award**"). Executive currently holds restricted stock units ("**RSUs**," and collectively with the Share Awards, the "**Prior Awards**") covering 122,881 shares of the Company's common stock (post Share Exchange). These equity awards will continue to be governed by the terms of the applicable equity plans and award agreements.

(b) **Single Trigger Acceleration**. If the Company is subject to a Change in Control before Executive's service to the Company terminates, there will be 100% acceleration of all then-unvested equity awards Executive holds. In addition, the Prior Awards will continue to be eligible to receive the Project Entity-specific accelerated vesting provided for in the original award agreement evidencing the Prior Award in connection with a Project Entity Change in Control. For example, if the Company elects to sell Nina Biotherapeutics, Inc. in a transaction that qualifies as a Project Entity Change in Control, the Prior Awards which had originally been issued to Executive by Nina Biotherapeutics, Inc. shall be entitled to 100% acceleration in connection such transaction.

(c) **Bonus**. The Company or the Project Entity which issued the applicable Share Award will pay to Executive or on Executive's behalf a bonus equal, on an after-tax basis, to the aggregate amount of withholding Executive incurs with respect to U.S, federal and state income and payroll taxes, as determined by the Company or such Project Entity in its sole discretion, and will pay Executive an additional bonus amount to partially offset the tax liability Executive will incur from the payment to Executive or payment of such taxes on Executive's behalf.

5. **Severance Benefits**.

(a) **General**. If Executive is subject to a Termination Without Cause, then Executive will be entitled to the benefits described in this Section 5. However, this Section 5 will not apply unless Executive (i) has returned all Company property in Executive's possession, (ii) has resigned as a member of the Boards of Directors of the Company and all of its subsidiaries, to the extent applicable, (iii) has executed a general release of all claims that Executive may have against the Company or persons affiliated with the Company and (iv) if so requested, has executed a general release of claims that Executive may have against the

Company. The releases must be in the form prescribed by the Company, without alterations. Executive must execute and return the releases on or before the dates specified in each prescribed form (the "**Release Deadline**"). The Release Deadline will in no event be later than 50 days after Executive's Separation. If Executive fails to return the releases on or before the Release Deadline, or if Executive revokes the releases, then Executive will not be entitled to the benefits described in this Section 5.

(b) **Cash Severance on Termination Without Cause**. If Executive is subject to a Termination Without Cause, then the Company will pay Executive a lump-sum severance payment equal to (i) six months' Base Salary, at Executive's final Base Salary rate; plus (ii) an amount equal to six times the Monthly Bonus; plus (iii) if the Company makes bonus payments to other Company employees for (or during) the calendar/fiscal year in which Executive is subject to a Termination Without Cause, then and only in this situation, the Company will pay Executive an amount equal to Executive's full target bonus for the calendar/fiscal year in which Executive's Separation occurs, which amount shall be prorated based upon the portion of that year that Executive is employed by the Company. Such amount will be paid to Executive in accordance with the Company's standard payroll procedures within 60 days after Executive's Separation. However, if the 60-day period described in the preceding sentence spans two calendar years, then the payment will in any event be made in the second calendar year.

(c) **Additional Payment in Lieu of Health Benefit**. If Executive is subject to a Termination Without Cause, the Company will pay Executive an additional lump-sum amount equal to the product of (x) the monthly amount the Company was paying on behalf of Executive and Executive's eligible dependents with respect to the Company's health insurance plans in which Executive and Executive's eligible dependents were participants as of the day of Executive's Separation multiplied by (y) six. Such payment will be made in accordance with the Company's standard payroll procedures and subject to the Company's having first received effective releases pursuant to Section 5(a) above, will be paid within 60 days after Executive's Separation. However, if the 60-day period described in the preceding sentence spans two calendar years, then the payment will in any event be made in the second calendar year.

(d) **Accelerated Vesting**. if Executive is subject to a Termination Without Cause, then the vested percentage of the Time-Based Shares subject to each equity award will be determined by adding six months to the actual period of service that Executive has completed with the Company.

(e) **Section 409A**. For purposes of Section 409A of the Code, each payment under Section 5 is hereby designated as a separate payment. If the Company determines that Executive is a "specified employee" under Section 409A(a)(2)(B)(i) of the Code at the time of Executive's Separation, then the payments under Section 5, to the extent that they are subject to Section 409A of the Code, will be made on the first business day following (A) expiration of the six-month period measured from Executive's Separation or (B) the date of Executive's death.

6. **Proprietary Information and Inventions Agreement**. Executive previously signed standard Proprietary Information and Inventions Agreements with the Company and each Entity dated as of November 13, 2012 (collectively the "PHA"), which remain in full force and effect pursuant to its terms.

7. **Employment Relationship**. Employment with the Company is for no specific period of time. Executive's employment with the Company is "at will," meaning that either Executive or the Company may terminate Executive's employment at any time and for any reason, with or without cause. Any contrary representations that may have been made to Executive is superseded by this Employment Agreement. This is the full and complete agreement between Executive and the Company on this term. Although Executive's job duties, title, compensation and benefits, as well as the Company's personnel policies and procedures, may change from time to time, the "at will" nature of Executive's employment may only be changed in an express written agreement signed by Executive and a duly authorized officer of the Company (other than Executive).

8. **Miscellaneous**. All forms of compensation referred to in this Employment Agreement are subject to reduction to reflect applicable withholding and payroll taxes and other deductions required by law. Executive is encouraged to obtain Executive's own tax advice regarding Executive's compensation from the Company. Executive agrees that the Company does not have a duty to design its compensation policies in a manner that minimizes Executive's tax liabilities, and Executive will not make any claim against the Company or its Board of Directors related to tax liabilities arising from Executive's compensation.

9. **Interpretation, Amendment and Enforcement**. This Agreement, and any equity agreements referred to herein, supersede and replace the Prior Agreement and any other prior agreements, representations or understandings (whether written, oral, implied or otherwise) between Executive and the Company and, together with the PHA, constitutes the complete agreement between Executive and the Company regarding the subject matter set forth herein. This Agreement may not be amended or modified, except by an express written agreement signed by both Executive and a duly authorized officer of the Company. The terms of this Agreement and the resolution of any disputes as to the meaning, effect, performance or validity of this Agreement arising out of, related to, or in any way connected with this Agreement, Executive's employment with the Company or any other relationship between Executive and the Company (the "**Disputes**") will be governed by California law, excluding laws relating to conflicts or choice of law. Executive and the Company submit to the exclusive personal jurisdiction of the federal and state courts located in California in connection with any Dispute or any claim related to any Dispute.

10. **Definitions**. The following terms have the meaning set forth below wherever they are used in this Agreement:

"**Cause**" means (a) Executive's unauthorized use or disclosure of the Company's confidential information or trade secrets, which use or disclosure causes material harm to the Company, (b) Executive's material breach of any agreement between Executive and the Company, (c) Executive's material failure to comply with the Company's written policies or rules, (d) Executive's conviction of, or Executive's plea of "guilty" or "no contest" to, a felony under the laws of the United States or any State, (e) Executive's gross negligence or willful misconduct in connection with the performance of Executive's duties for the Company, which negligence or misconduct results in material harm to the Company, (f) Executive's continuing failure to perform lawful and reasonable assigned duties after receiving written notification of the failure from the Company and a reasonable opportunity to correct such failure following Executive's receipt of that notice, or (g) Executive's failure to cooperate in good faith with a governmental or internal investigation of the Company or its directors, officers or employees, if the

Company has requested Executive's cooperation. For purposes of clarity, Executive's refusal to relocate to another location (including, without limitation, to Thousand Oaks, California) at the Company's request shall not constitute "Cause."

"**Change in Control**" means,

(i) the merger, consolidation, recapitalization, or reorganization of the Company, other than a merger, consolidation, recapitalization or reorganization which would result in the voting securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity) more than fifty percent (50%) of the total voting power represented by the voting securities of the Company or such surviving entity outstanding immediately after such merger, consolidation, recapitalization or reorganization;

(ii) the sale or disposition by the Company's stockholders of more than fifty percent (50%) of the total voting securities of the Company;

(iii) a complete liquidation or dissolution of the Company;

(iv) the sale or disposition by the Company of all or substantially all of its assets; or

(v) the exclusive licensing to a third party of all or substantially all of the Company's intellectual property.

Notwithstanding the foregoing, the following transactions shall not constitute a Change in Control; (i) a transaction the sole purpose of which is to change the state of the Company's incorporation or to create a holding company that will be owned in substantially the same proportions by the persons who held the Company's securities immediately before such transaction; (ii) a transaction or series of related transactions involving the sale of securities by the Company primarily for financing purposes; (iii) a merger or consolidation involving the Company and one or more companies under common management control with the Company; or (iv) an IPO. If the timing of payments provided under an RSU Award agreement is based on or triggered by a Change in Control then, to extent necessary to avoid violating Code Section 409A, a Change in Control must also constitute a "change in control event" (as defined under Code Section 409A regulations and applicable guidance).

"**Code**" means the Internal Revenue Code of 1986, as amended.

"**IPO**' means an initial public offering by the applicable Entity or the Company of its equity securities pursuant to an effective registration statement filed with the SEC.

"**Project Entity Change in Control**" means, with respect to an Entity:

(i) a merger, spin-off or similar transaction involving (directly or indirectly) a Project Entity and, immediately after the consummation of such merger, spin-off or similar transaction, the stockholders of the Company immediately prior thereto do not own, directly or indirectly, either (A) outstanding voting securities representing more than 50% of the combined outstanding voting power of the Project Entity in such transaction or (B) more than 50% of the

combined outstanding voting power of the parent of the Project Entity in such transaction, in each case in substantially the same proportions as their ownership of the outstanding voting securities of the Company immediately prior to such transaction;

(ii) the sale or disposition by the Company of all or substantially all of the assets of a Project Entity; or

(iii) the exclusive licensing to a third party of all or substantially all of the Project Entity's intellectual property.

Notwithstanding the foregoing, the following transactions shall not constitute a Change in Control: (i) a transaction the sole purpose of which is to change the state of such Entity's incorporation or to create a holding company that will be owned in substantially the same proportions by the persons who held the applicable Entity's securities immediately before such transaction; (ii) a transaction or series of related transactions involving the sale of securities by such Entity primarily for financing purposes; (iii) a merger or consolidation involving such Entity and one or more companies under common management control with such Entity; or (iv) an IPO. If the timing of payments provided under an RSU Award agreement is based on or triggered by a Project Entity Change in Control then, to extent necessary to avoid violating Code Section 409A, a Project Entity Change in Control must also constitute a "change in control event" (as defined under Code Section 409A regulations and applicable guidance).

"**Separation**" means a "separation from service," as defined in the regulations under Section 409A of the Code.

"**Termination Without Cause**" means a Separation as a result of a termination of Executive's employment by the Company other than for Cause or due to Executive's death or disability, provided that Executive is willing and able to continue performing services within the meaning of Treasury Regulation 1.409A-1(nX1).

* * * * *

IN WITNESS WHEREOF, the parties have executed this Employment Agreement as of the date set forth above.

ATARA BIOTHERAPEUTICS,

/s/ John McGrath

By: John McGrath
Title:

ISAAC CIECHANOVER, M.D.

/s/ Isaac Ciechanover, M.D.

Exhibit 10.11

ATARA BIOTHERAPEUTICS, INC.

EMPLOYMENT AGREEMENT

This Employment Agreement (the "**Agreement**") is made and entered into as of March 31, 2014, by and between Atara Biotherapeutics, Inc., a Delaware corporation (the "**Company**") and Christopher M. Haqq, M.D., Ph.D. ("**Executive**"). From and following the date hereof, this Agreement shall replace and supersede that certain letter agreement between the Company and Executive dated September 12, 2012, as amended on December 5, 2012 (the "**Prior Agreement**").

RECITALS

WHEREAS, the Company and Executive are currently parties to the Prior Agreement and wish to enter into this Agreement as set forth herein in connection with a share exchange, pursuant to which each of Nina Biotherapeutics, Inc., Pinta Biotherapeutics, Inc. and Santa Maria Biotherapeutics, Inc. (each a "**Project Entity**") shall become wholly-owned subsidiaries of the Company (the "**Share Exchange**");

NOW THEREFORE, in consideration of the mutual promises and covenants contained herein and certain other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

AGREEMENT

1. **Duties and Scope of Employment.**

(a) **Position.** Executive will remain employed as the Company's Chief Medical Officer, reporting to the Company's Chief Executive Officer. This is a full-time position. While Executive renders services to the Company, Executive will not engage in any other employment, consulting or other business activity (whether full-time or part-time) that would create a conflict of interest with the Company. By signing this Agreement, Executive reaffirms to the Company that Executive has no contractual commitments or other legal obligations that would prohibit Executive from performing his duties for the Company. The Company specifically acknowledges and agrees that Executive may continue to serve on the Scientific Advisory Board of Eddingpharm, Inc.; provided, however, that Executive agrees to recuse himself from any business or scientific discussion with Eddingpharm, Inc. that would conflict with the Company's business.

(b) **Location**. The Company acknowledges and agrees that Executive's principal office will be no farther than 30 miles from Thousand Oaks, California until the earlier of (i) September 17, 2014 and (ii) the date on which the Company is subject to a Change in Control.

2. **Cash Compensation**. The Company will pay Executive a salary at the rate of $319,300 per year (the "Base Salary"), payable in accordance with the Company's standard payroll schedule. This salary will be subject to adjustment pursuant to the Company's employee compensation policies in effect from time to time. In addition, Executive will be eligible to be considered for an incentive bonus for each fiscal year of the Company. The bonus (if any) will be awarded based on objective criteria established and approved by the Company's Board of Directors, certain of which will be personal to Executive and certain of which will be based on corporate goals. Executive's target bonus will be equal to 30% of the Base Salary. Any bonus for a fiscal year will be paid within 2 ½ months after the close of that fiscal year, but only if Executive is still employed by the Company at the time of payment. The determinations of the Board with respect to the bonus will be final and binding.

3. **Employee Benefits**. The Company's benefits, payroll and other human resource management services will continue to be provided through TriNet Employer Group, Inc. ("**TriNet**"), a professional employer organization. As a result of the Company's arrangement with TriNet, TriNet will be considered Executive's "employer of record" for these purposes. In addition, Executive will be entitled to paid time off in accordance with the Company's paid time off policy, as in effect from time to time.

4. **Equity Compensation**.

(a) **Prior Awards**. Executive currently holds 349,999 shares of the Company's common stock (post Share Exchange), which were issued pursuant to the terms of certain Restricted Stock Grant and Purchase Agreements originally entered into between Executive and each Project Entity (each, a "**Share Award**"). In addition, Executive currently holds restricted stock units ("**RSUs**," and collectively with the Share Awards, the "**Prior Awards**") covering 17,245 shares of the Company's common stock (post Share Exchange). These equity awards will continue to be governed by the terms of the applicable equity plans and award agreements.

(b) **Single Trigger Acceleration**. If the Company is subject to a Change in Control before Executive's service to the Company terminates, there will be 100% acceleration of all then-unvested equity awards Executive holds. In addition, the Prior Awards will continue to be eligible to receive the Project Entity-specific accelerated vesting provided for in the original award agreement evidencing the Prior Award in connection with a Project Entity Change in Control. For example, if the Company elects to sell Nina Biotherapeutics, Inc. in a transaction that qualifies as a Project Entity Change in Control, the Prior Awards which had originally been issued to Executive by Nina Biotherapeutics, Inc. shall be entitled to 100% acceleration in connection such transaction.

5. **Severance Benefits**.

(a) **General**. If Executive is subject to a Termination Without Cause, then Executive will be entitled to the benefits described in this Section 5. However, this Section 5 will not apply unless Executive (i) has returned all Company property in Executive's possession, (ii) has resigned as a member of the Boards of Directors of the Company and all of its subsidiaries, to the extent applicable, (iii) has executed a general release of all claims that Executive may have against the Company or persons affiliated with the Company and (iv) if so requested, has executed a general release of claims that Executive may have against the Company. The releases must be in the form prescribed by the Company, without alterations. Executive must execute and return the releases on or before the dates specified in each prescribed form (the "**Release Deadline**"). The Release Deadline will in no event be later than 50 days after Executive's Separation. If Executive fails to return the releases on or before the Release Deadline, or if Executive revokes the releases, then Executive will not be entitled to the benefits described in this Section 5.

(b) **Salary Continuation**. If Executive is subject to a Termination Without Cause, then the Company will continue to pay the Base Salary for a period of three months after Executive's Separation. Executive's Base Salary will be paid at the rate in effect at the time of Executive's Separation and in accordance with the Company's standard payroll procedures. The salary continuation payments will commence within 60 days after Executive's Separation and, once they commence, will include any unpaid amounts accrued from the date of Executive's Separation. However, if the 60-day period described in the preceding sentence spans two calendar years, then the payments will in any event begin in the second calendar year.

(c) **Additional Payments in Lieu of Health Benefit**. If Executive is subject to a Termination Without Cause, the Company will pay Executive an additional monthly amount for the three-month period following Executive's Separation equal to the monthly amount the Company was paying on behalf of Executive and Executive's eligible dependents with respect to the Company's health insurance plans in which Executive and Executive's eligible dependents were participants as of the day of Executive's Separation, Such payments will be made in accordance with the Company's standard payroll procedures. Subject to the Company's having first received effective releases pursuant to Section 5(a) above, such payments will commence within 60 days after Executive's Separation and, once they commence, will include any unpaid amounts accrued from the date of Executive's Separation. However, if the 60-day period described in the preceding sentence spans two calendar years, then the payments will in any event begin in the second calendar year.

(d) **Accelerated Vesting**. If Executive is subject to a Termination Without Cause, then the vested percentage of the shares subject to each equity award will be determined by adding three months to the actual period of service that Executive has completed with the Company.

(e) **Section 409A**. For purposes of Section 409A of the Internal Revenue Code of 1986, as amended (the "**Code**"), each salary continuation payment under Section 5(b) is hereby designated as a separate payment. If the Company determines that Executive is a "specified employee" under Section 409A(a)(2)(B)(i) of the Code at the time of Executive's Separation, then (i) the salary continuation payments under Section 5(b), to the extent that they are subject to Section 409A of the Code, will commence on the first business day following (A) expiration of the six-month period measured from Executive's Separation or (B) the date of Executive's death and (ii) the installments that otherwise would have been paid prior to such date will be paid in a lump sum when the salary continuation payments commence.

6. **Proprietary Information and Inventions Agreement**. Executive previously signed standard Proprietary Information and Inventions Agreements with the Company and each Entity dated as of September 28, 2012 (collectively the "**PIIA**"), which remain in full force and effect pursuant to its terms.

7. **Employment Relationship**. Employment with the Company is for no specific period of time. Executive's employment with the Company is "at will," meaning that either Executive or the Company may terminate Executive's employment at any time and for any reason, with or without cause. Any contrary representations that may have been made to Executive is superseded by this Employment Agreement. This is the full and complete agreement between Executive and the Company on this term. Although Executive's job duties, title, compensation and benefits, as well as the Company's personnel policies and procedures, may change from time to time, the "at will" nature of Executive's employment may only be changed in an express written agreement signed by Executive and a duly authorized officer of the Company (other than Executive).

8. **Miscellaneous**. All forms of compensation referred to in this Employment Agreement are subject to reduction to reflect applicable withholding and payroll taxes and other deductions required by law, Executive is encouraged to obtain Executive's own tax advice regarding Executive's compensation from the Company. Executive agrees that the Company does not have a duty to design its compensation policies in a manner that minimizes Executive's tax liabilities, and Executive will not make any claim against the Company or its Board of Directors related to tax liabilities arising from Executive's compensation.

9. **Interpretation, Amendment and Enforcement**. This Agreement, and any equity agreements referred to herein, supersede and replace the Prior Agreement and any other prior

agreements, representations or understandings (whether written, oral, implied or otherwise) between Executive and the Company and, together with the PIIA, constitutes the complete agreement between Executive and the Company regarding the subject matter set forth herein. This Agreement may not be amended or modified, except by an express written agreement signed by both Executive and a duly authorized officer of the Company. The terms of this Agreement and the resolution of any disputes as to the meaning, effect, performance or validity of this Agreement arising out of, related to, or in any way connected with, this Agreement, Executive's employment with the Company or any other relationship between Executive and the Company (the "**Disputes**") will be governed by California law, excluding laws relating to conflicts or choice of law. Executive and the Company submit to the exclusive personal jurisdiction of the federal and state courts located in California in connection with any Dispute or any claim related to any Dispute.

10. **Definitions**. The following terms have the meaning set forth below wherever they are used in this Agreement:

"**Cause**" means (a) Executive's unauthorized use or disclosure of the Company's confidential information or trade secrets, which use or disclosure causes material harm to the Company, (b) Executive's material breach of any agreement between Executive and the Company, (c) Executive's material failure to comply with the Company's written policies or rules, (d) Executive's conviction of, or Executive's plea of "guilty" or "no contest" to, a felony under the laws of the United States or any State, (e) Executive's gross negligence or willful misconduct in connection with the performance of Executive's duties for the Company, which negligence or misconduct results in material harm to the Company, (f) Executive's continuing failure to perform lawful and reasonable assigned duties after receiving written notification of the failure from the Company and a reasonable opportunity to correct such failure following Executive's receipt of that notice, or (g) Executive's failure to cooperate in good faith with a governmental or internal investigation of the Company or its directors, officers or employees, if the Company has requested Executive's cooperation.

"**Change in Control**" means,

(i) the merger, consolidation, recapitalization, or reorganization of the Company, other than a merger, consolidation, recapitalization or reorganization which would result in the voting securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity) more than fifty percent (50%) of the total voting power represented by the voting securities of the Company or such surviving entity outstanding immediately after such merger, consolidation, recapitalization or reorganization;

(ii) the sale or disposition by the Company's stockholders of more than fifty percent (50%) of the total voting securities of the Company;

(iii) a complete liquidation or dissolution of the Company;

(iv) the sale or disposition by the Company of all or substantially all of its assets; or

(v) the exclusive licensing to a third party of all or substantially all of the Company's intellectual property.

Notwithstanding the foregoing, the following transactions shall not constitute a Change in Control: (i) a transaction the sole purpose of which is to change the state of the Company's incorporation or to create a holding company that will be owned in substantially the same proportions by the persons who held the Company's securities immediately before such transaction; (ii) a transaction or series of related transactions involving the sale of securities by the Company primarily for financing purposes; (iii) a merger or consolidation involving the Company and one or more companies under common management control with the Company; or (iv) an IPO. If the timing of payments provided under an RSU Award agreement is based on or triggered by a Change in Control then, to extent necessary to avoid violating Code Section 409A, a Change in Control must also constitute a "change in control event" (as defined under Code Section 409A regulations and applicable guidance).

"**IPO**" means an initial public offering by the applicable Entity or the Company of its equity securities pursuant to an effective registration statement filed with the SEC.

"**Project Entity Change in Control**" means, with respect to an Entity:

(i) a merger, spin-off or similar transaction involving (directly or indirectly) a Project Entity and, immediately after the consummation of such merger, spin-off or similar transaction, the stockholders of the Company immediately prior thereto do not own, directly or indirectly, either (A) outstanding voting securities representing more than 50% of the combined outstanding voting power of the Project Entity in such transaction or (B) more than 50% of the combined outstanding voting power of the parent of the Project Entity in such transaction, in each case in substantially the same proportions as their ownership of the outstanding voting securities of the Company immediately prior to such transaction;

(ii) the sale or disposition by the Company of all or substantially all of the assets of a Project Entity; or

(iii) the exclusive licensing to a third party of all or substantially all of the Project Entity's intellectual property.

Notwithstanding the foregoing, the following transactions shall not constitute a Change in Control: (i) a transaction the sole purpose of which is to change the state of such Entity's incorporation or to create a holding company that will be owned in substantially the same proportions by the persons who held the applicable Entity's securities immediately before such transaction; (ii) a transaction or series of related transactions involving the sale of securities by such Entity primarily for financing purposes; (iii) a merger or consolidation involving such Entity and one or more companies under common management control with such Entity; or (iv) an IPO. If the timing of payments provided under an RSU Award agreement is based on or triggered by a Project Entity Change in Control then, to extent necessary to avoid violating Code Section 409A, a Project Entity Change in Control must also constitute a "change in control event" (as defined under Code Section 409A regulations and applicable guidance).

"**Separation**" means a "separation from service," as defined in the regulations under Section 409A of the Code.

"**Termination Without Cause**" means a Separation as a result of a termination of Executive's employment by the Company other than for Cause or due to Executive's death or disability, provided that Executive is willing and able to continue performing services within the meaning of Treasury Regulation .409A-1(n)(1).

* * * * *

IN WITNESS WHEREOF, the parties have executed this Employment Agreement as of the date set forth above.

ATARA BIOTHERAPEUTICS, INC.

/s/ Isaac Ciechanover

By: Isaac Ciechanover, M.D.
Title: Chief Executive Officer

CHRISTOPHER M. HAQQ, M.D., PH.D.

/s/ Christopher Haqq

[Signature Page to Employment Agreement)

Exhibit 10.12

ATARA BIOTHERAPEUTICS, INC.

EMPLOYMENT AGREEMENT

This Employment Agreement (the "**Agreement**") is made and entered into as of March 11, 2014, by and between Atara Biotherapeutics, Inc., a Delaware corporation (the "**Company**") and John McGrath ("**Executive**"). From and following the date hereof, this Agreement shall replace and supersede that certain letter agreement between the Company and Executive dated December 5, 2012 (the "**Prior Agreement**").

RECITALS

WHEREAS, the Company and Executive are currently parties to the Prior Agreement and wish to enter into this Agreement as set forth herein in connection with a share exchange, pursuant to which each of Nina Biotherapeutics, Inc., Pinta Biotherapeutics, Inc. and Santa Maria Biotherapeutics, Inc. (each a "**Project Entity**") shall become wholly-owned subsidiaries of the. Company (the "**Share Exchange**");

NOW THEREFORE, in consideration of the mutual promises and covenants contained herein and certain other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

AGREEMENT

1. Duties and Scope of Employment. Executive will remain employed as the Company's Chief Financial Officer, reporting to the Company's Chief Executive Officer. This is a full-time position. Executive's responsibilities will encompass, but are not limited to finance, facilities, accounting, human resources and other functions. While Executive renders services to the Company, Executive will not engage in any other employment, consulting or other business activity (whether full-time or part-time) that would create a conflict of interest with the Company. By signing this Agreement, Executive reaffirms to the Company that Executive has no contractual commitments or other legal obligations that would prohibit Executive from performing his duties for the Company.

2. Cash Compensation. The Company will pay Executive a salary at the rate of $280,000 per year (the "**Base Salary**"), payable in accordance with the Company's standard payroll schedule. This salary will be subject to adjustment pursuant to the Company's employee compensation policies in effect from time to time. In addition, Executive will be eligible to be considered for an incentive bonus for each fiscal year of the Company. The bonus (if any) will be awarded based on the achievement of milestones to be established mutually by Executive and the Chief Executive Officer. Executive's target bonus will be equal to 25% of the Base Salary. Any bonus earned for a fiscal year will be paid within 2 ½ months after the close of that fiscal year, but only if Executive is still employed by the Company at the time of payment. The determinations of the Company with respect to Executive's bonus will be final and binding.

3. Employee Benefits. The Company's benefits, payroll and other human resource management services will continue to be provided through TriNet Employer Group, Inc. ("**TriNet**"), a professional employer organization. As a result of the Company's arrangement with TriNet, TriNet will be considered Executive's "employer of record" for these purposes. In addition, Executive will be entitled to accrue up to 160 hours of paid time off (PTO) in accordance with the Company's paid time off policy, as in effect from time to tittle.

4. Equity Compensation. Executive currently holds restricted stock units (the "**Prior Awards**") covering 218,437 shares of the Company's common stock (post Share Exchange). These equity awards will continue to be governed by the terms of the applicable equity plans and award agreements

5. Taxes. All payments made by the Company (or any Company affiliate) to Executive or Executive's estate or beneficiaries will be subject to tax withholding pursuant to any applicable laws or regulations. Executive will be solely liable and responsible for the payment of Executive's taxes arising as a result of any payment provided to Executive in connection with Executive's employment including without limitation any unexpected or adverse tax consequences. Any such payments or benefits provided to Executive are intended to be exempt from or comply with the requirements of section 409A of the Code. In the event any payment or benefit is deemed to be subject to section 409A of the Code, Executive consents to the Company adopting such conforming amendments as the Company deems necessary, in its reasonable discretion, to comply with section 409A of the Code. In addition, if Executive is a specified employee (within the meaning of Code Section 409A) at the time of Executive's separation from service, then to the extent necessary to comply with Code Section 409A and avoid the imposition of taxes under Code Section 409A, the payment of certain benefits owed to Executive under this Agreement will be delayed and instead paid (without interest) to Executive upon the earlier of the first business day of the seventh month following Executive's separation from service or Executive's death. Additionally, no payments or benefits will constitute excess parachute payments as defined under Code Section 280G.

6. Proprietary Information and Inventions Agreement. Executive previously signed standard Proprietary Information and Inventions Agreements with the Company and each Entity dated as of January 22, 2013 (collectively the "**PIIA**"), which remain in full force and effect pursuant to its terms.

7. Employment Relationship. Employment with the Company is for no specific period of time. Executive's employment with the Company is "at will," meaning that either Executive or the Company may terminate Executive's employment at any time and for any reason, with or without cause. Any contrary representations that may have been made to Executive is superseded by this Employment Agreement. This is the full and complete agreement between Executive and the Company on this term. Although Executive's job duties, title, compensation and benefits, as well as the Company's personnel policies and procedures, may change from time to time, the "at will" nature of Executive's employment may only be changed in an express written agreement signed by Executive and a duly authorized officer of the Company (other than Executive).

8. Miscellaneous. All forms of compensation referred to in this Employment Agreement are subject to reduction to reflect applicable withholding and payroll taxes and other deductions required by law. Executive is encouraged to obtain Executive's own tax advice regarding Executive's compensation from the Company. Executive agrees that the Company does not have a duty to design its compensation policies in a manner that minimizes Executive's tax liabilities, and Executive will not make any claim against the Company or its Board of Directors related to tax liabilities arising from Executive's compensation.

9. Interpretation, Amendment and Enforcement. This Agreement, and any equity agreements referred to herein, supersede and replace the Prior Agreement and any other prior agreements, representations or understandings (whether written, oral, implied or otherwise) between Executive and the Company and, together with the PIIA, constitutes the complete agreement between Executive and the Company regarding the subject matter set forth herein. This Agreement may not be amended or modified, except by an express written agreement signed by both Executive and a duly

authorized officer of the Company. The terms of this Agreement and the resolution of any disputes as to the meaning, effect, performance or validity of this Agreement arising out of, related to, or in any way connected with, this Agreement, Executive's employment with the Company or any other relationship between Executive and the Company (the "**Disputes**") will be governed by California law, excluding laws relating to conflicts or choice of law. Executive and the Company submit to the exclusive personal jurisdiction of the federal and state courts located in California in connection with any Dispute or any claim related to any Dispute.

10. Severance.

(a) General. If Executive is subject to a Termination Without Cause following a Change in Control, then Executive will be entitled to the benefits described in this Section 10. However, this Section 10 will not apply unless Executive (i) has returned all Company property in Executive's possession, (ii) as a result of such Termination Without Cause following a Change in Control, is no longer an employee or consultant of the Company, any Entity, or any Other Entity, (iii) has executed a general release of all employment-related claims that Executive may have against the Company or persons affiliated with the Company and (iv) if so requested, has executed a genera' release of all employment-related claims that Executive may have against each Entity or persons affiliated with such Entity. Executive must execute and return any such releases on or before the dates specified in the corresponding release (in each case, the "**Release Deadline**"). The Release Deadline will in no event be later than 50 days after Executive's Separation.

(b) Cash Severance on Termination Without Cause. If Executive is subject to a Termination Without Cause following a Change in Control, then the Company will pay Executive a lump-sum severance payment equal to six months' Base Salary, at Executive's final Base Salary rate. Such amount will be paid to Executive in accordance with the Company's standard payroll procedures within 60 days after Executive's Separation. However, if the 60-day period described in the preceding sentence spans two calendar years, then the payment will in any event be made in the second calendar year.

11. Definitions. The following terms have the mewling set forth below wherever they are used in this Agreement:

"**Cause**" means (a) Executive's unauthorized use or disclosure of the Company's confidential information or trade secrets, which use or disclosure causes material harm to the Company, (b) Executive's material breach of any agreement between Executive and the Company, (c) Executive's material failure to comply with the Company's written policies or rules, (d) Executive's conviction of, or Executive's plea of "guilty" or "no contest" to, a felony under the laws of the United States or any State, (e) Executive's gross negligence or willful misconduct in connection with the performance of Executive's duties for the Company, which negligence or misconduct results in material harm to the Company, (f) Executive's continuing failure to perform lawful and reasonable assigned duties after receiving written notification of the failure from the Company and a reasonable opportunity to correct such failure following Executive's receipt of that notice, or (g) Executive's failure to cooperate in good faith with a governmental or internal investigation of the Company or its directors, officers or employees, if the Company has requested Executive's cooperation.

"**Change in Control**" means,

(i) the merger, consolidation, recapitalization, or reorganization of the Company, other than a merger, consolidation, recapitalization or reorganization which would result in the voting securities of the Company outstanding immediately prior

thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity) more than fifty percent (50%) of the total voting power represented by the voting securities of the Company or such surviving entity outstanding immediately after such merger, consolidation, recapitalization or reorganization;

(ii) the sale or disposition by the Company's stockholders of more than fifty percent (50%) of the total voting securities of the Company;

(iii) a complete liquidation or dissolution of the Company;

(iv) the sale or disposition by the Company of all or substantially all of its assets; or

(v) the exclusive licensing to a third party of all or substantially all of the Company's intellectual property.

Notwithstanding the foregoing, the following transactions shall not constitute a Change in Control: (i) a transaction the sole purpose of which is to change the state of the Company's incorporation or to create a holding company that will be owned in substantially the same proportions by the persons who held the Company's securities immediately before such transaction; (ii) a transaction or series of related transactions involving the sale of securities by the Company primarily for financing purposes; (iii) a merger or consolidation involving the Company and one or more companies under common management control with the Company; or (iv) an IPO. If the timing of payments provided under an RSU Award agreement is based on or triggered by a Change in Control then, to extent necessary to avoid violating Code Section 409A, a Change in Control must also constitute a "change in control event" (as defined under Code Section 409A regulations and applicable guidance).

"**Code**" means the Internal Revenue Code of 1986, as amended.

"**IPO**" means an initial public offering by the applicable Entity or the Company of its equity securities pursuant to an effective registration statement filed with the SEC.

"**Project Entity Change in Control**" means, with, respect to an Entity:

(i) a merger, spin-off or similar transaction involving (directly or indirectly) a Project Entity and, immediately after the consummation of such merger, spin-off or similar transaction, the stockholders of the Company immediately prior thereto do not own, directly or indirectly, either (A) outstanding voting securities representing more than 50% of the combined outstanding voting power of the Project Entity in such transaction or (B) more than 50% of the combined outstanding voting power of the parent of the Project Entity in such transaction, in each case in substantially the same proportions as their ownership of the outstanding voting securities of the Company immediately prior to such transaction;

(ii) the sale or disposition by the Company of all or substantially all of the assets of a Project Entity; or

(iii) the exclusive licensing to a third party of all or substantially all of the Project Entity's intellectual property.

Notwithstanding the foregoing, the following transactions shall not constitute a Change in Control: (i) a transaction the sole purpose of which is to change the state of such Entity's incorporation or to create a holding company that will be owned in substantially the same proportions by the persons who held the applicable Entity's securities immediately before such transaction; (ii) a transaction or series of related transactions involving the sale of securities by such Entity primarily for financing purposes; (iii) a merger or consolidation involving such Entity and one or more companies under common management control with such Entity; or (iv) an IPO. If the timing of payments provided under an RSU Award agreement is based on or triggered by a Project Entity Change in Control then, to extent necessary to avoid violating Code Section 409A, a Project Entity Change in Control must also constitute a "change in control event" (as defined under Code Section 409A regulations and applicable guidance).

"**Separation**" means a "separation from service," as defined in the regulations under Section 409A of the Code.

"**Termination Without Cause**" means a Separation as a result of a termination of Executive's employment by the Company other than for Cause or due to Executive's death or disability, provided that Executive is willing and able to continue performing services within the meaning of Treasury Regulation 1.409A-1(n)(1).

* * * * *

IN WITNESS WHEREOF, the parties have executed this Employment Agreement as of the date set forth above.

ATARA BIOTHERAPEUTICS, INC.

/s/ Isaac Ciechanover, M.D.

By: Isaac Ciechanover, M.D.
Title: Chief Executive Officer

JOHN MCGRATH

/s/ John McGrath

[Signature Page to Employment Agreement]

Exhibit 10.13

ATARA BIOTHERAPEUTICS, INC.

EMPLOYMENT AGREEMENT

This Employment Agreement (the "**Agreement**") is made and entered into as of March 31, 2014, by and between Atara Biotherapeutics, Inc., a Delaware corporation (the "**Company**") and Mitchall Clark ("**Executive**"). From and following the date hereof, this Agreement shall replace and supersede that certain letter agreement between the Company and Executive dated March 10th, 2014 (the "**Prior Agreement**").

RECITALS

WHEREAS, the Company and Executive are currently parties to the Prior Agreement and wish to enter into this Agreement as set forth herein in connection with a share exchange, pursuant to which each of Nina Biotherapeutics, Inc., Pinta Biotherapeutics, Inc. and Santa Maria Biotherapeutics, Inc. (each a "**Project Entity**") shall become wholly-owned subsidiaries of the Company (the "**Share Exchange**");

NOW THEREFORE, in consideration of the mutual promises and covenants contained herein and certain other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

AGREEMENT

1. Duties and Scope of Employment. Executive will remain employed as the Company's Chief Regulatory and Quality Assurance Officer, reporting to the Company's Chief Executive Officer. This is a full-time position. Executive's initial responsibilities will include, but not be limited to, implementation of the Company's Regulatory strategies, including all communications worldwide with appropriate regulatory agencies, filings of all relevant applications, and all related activities. In addition, Executive will be responsible for all oversight and implementation of the Company's quality assurance programs covering manufacturing and clinical activities. While Executive renders services to the Company, Executive will not engage in any other employment, consulting or other business activity (whether full-time or part-time) that would create a conflict of interest with the Company. By signing this Agreement, Executive reaffirms to the Company that Executive has no contractual commitments or other legal obligations that would prohibit Executive from performing his duties for the Company, other than during the Transition Period as described in Section 8 below.

2. Cash Compensation. The Company will pay Executive a base salary at the rate of $290,000 per year (the "**Base Salary**"), subject to normal payroll deductions and required withholdings, and payable in accordance with the Company's standard payroll schedule. This salary will be subject to adjustment from time to time pursuant to the Company's employee compensation policies in effect. Executive also will be eligible for an annual bonus of up to 25% of Executive's Base Salary, based on achievement of corporate performance (including financial) objectives, as well as personal performance objectives, payable at the discretion of the Chief Executive Officer of the Company and the Board of Directors. Corporate performance objectives will be established at the sole discretion of the Board of Directors, and Executive's personal performance objectives will be mutually agreed upon in writing between Executive and the Chief Executive Officer of the Company on an annual basis. Executive's annual bonus is also subject to payroll deductions and required withholdings. Any bonus earned for a fiscal year will be paid within 2% months after the close of that fiscal year, but only if Executive is still employed by the Company at the time of payment. The determinations of the Company with respect to Executive's bonus will be final and binding, and while the Company expects the Company's success and Executive's individual contributions will warrant that a bonus be paid, there are no guarantees that such payment will be made.

3. Employee Benefits. The Company's benefits, payroll and other human resource management services will continue to be provided through TriNet Employer Group, Inc. ("**TriNet**"), a professional employer organization. As a result of the Company's arrangement with TriNet, TriNet will be considered Executive's "employer of record" for these purposes. In addition, Executive will be entitled to accrue up to 160 hours of paid time off in accordance with the Company's paid time off policy, as in effect from time to time. Executive's annual vacation benefit will be no less than twenty-five (25) paid days off per year.

Executive's position, duties, goals, work location and compensation may be modified based on Executive's performance and the evolving needs of the Company. Additionally the Company reserves the right to modify benefits, contribution and reimbursement levels from time to time, as it deems necessary.

4. Equity Compensation. Executive currently holds restricted stock units (the "**Prior Awards**") covering 149,997 shares of the Company's common stock (post Share Exchange). These equity awards will continue to be governed by the terms of the applicable equity plans and award agreements.

5. Taxes. All payments made by the Company (or any Company affiliate) to Executive or Executive's estate or beneficiaries will be subject to tax withholding pursuant to any applicable laws or regulations. Executive will be solely liable and responsible for the payment of Executive's taxes arising as a result of any payment provided to Executive in connection with Executive's employment including without limitation any unexpected or adverse tax consequences. Any such payments or benefits provided to Executive are intended to be exempt from or comply with the requirements of section 409A of the Code. In the event any payment or benefit is deemed to be subject to section 409A of the Code, Executive consents to the Company adopting such conforming amendments as the Company deems necessary, in its reasonable discretion, to comply with section 409A of the Code. In addition, if Executive is a specified employee (within the meaning of Code Section 409A) at the time of Executive's separation from service, then to the extent necessary to comply with Code Section 409A and avoid the imposition of taxes under Code Section 409A, the payment of certain benefits owed to Executive under this Agreement will be delayed and instead paid (without interest) to Executive upon the earlier of the first business day of the seventh month following Executive's separation from service or Executive's death. Additionally, no payments or benefits will constitute excess parachute payments as defined under Code Section 280G.

6. Proprietary Information and Inventions Agreement. Executive previously signed standard Proprietary Information and Inventions Agreements with the Company and each Entity dated as of March 10, 2014 (collectively the "**PIIA**"), which remain in full force and effect pursuant to its terms.

7. Employment Relationship. Employment with the Company is for no specific period of time. Executive's employment with the Company is "at will," meaning that either Executive or the Company may terminate Executive's employment at any time and for any reason, with or without cause. Any contrary representations that may have been made to Executive is superseded by this Employment Agreement. This is the full and complete agreement between Executive and the Company on this term. Although Executive's job duties, title, compensation and benefits, as well as the Company's personnel policies and procedures, may change from time to time, the "at will" nature of Executive's employment may only be changed in an express written agreement signed by Executive and a duly authorized officer of the Company (other than Executive).

8. Transition Period. The Company recognizes Executive is currently engaged as a Consultant to various clients and, as a result of accepting this position with the Company, Executive will be required to wind down Executive's consulting business in an orderly manner. Immediately upon acceptance of this position with the Company, Executive was required to inform all existing clients that Executive will be ending Executive's consultancy with them in the immediate future. The Company will provide for a period to effectuate this transition (the "**Transition Period**") as follows: in the first thirty days of employment with the Company, beginning March 13th, 2014, Executive will provide three (3) days a week of service to the Company with the balance of the work week allocated to Executive's existing clients; in the second thirty days of employment with the Company, Executive will provide four (4) days a week of service to the Company with the balance of the work week allocated to Executive's existing clients; and, in the third thirty days of employment with the Company, and thereafter, Executive will provide full-time service to the Company, recognizing a de minimis amount of time may still be required from time-to-time to satisfy Executive's obligations to the consulting clients engaged at the time Executive accepted this position with the Company. During the Transition Period, the Base Salary will be adjusted on a pro-rata basis appropriate to the time allocation outlined in this Section 8. The vesting of Executive's equity awards will commence as described in the equity agreements without regard to the Transition Period. Should the wind down of Executive's services to Executive's existing consulting clients occur sooner than described in the Transition Period, the Company will accelerate Executive's transition, and the associated effect on the Base Salary, based upon the facts presented by Executive to the Chief Executive Officer.

9. Work Location. Should the Company office locations be consolidated at some time in the future, and that consolidated location would necessitate Executive's residential relocation beyond ninety (90) miles from the existing Company office in Thousand Oaks, California, the Company will endeavor in good faith to reach an agreement with Executive allowing for Executive's continued employment with the Company without requiring the relocation of Executive's residence. There is no guarantee provided herein, either explicit or implied, that such an agreement will be reached nor will Executive be required to continue as an employee of the Company should such an agreement not be reached.

10. Miscellaneous. All forms of compensation referred to in this Employment Agreement are subject to reduction to reflect applicable withholding and payroll taxes and other deductions required by law. Executive is encouraged to obtain Executive's own tax advice regarding Executive's compensation from the Company. Executive agrees that the Company does not have a duty to design its compensation policies in a manner that minimizes Executive's tax liabilities, and Executive will not make any claim against the Company or its Board of Directors related to tax liabilities arising from Executive's compensation.

11. Interpretation, Amendment, and Enforcement. This Agreement, and any equity agreements referred to herein, supersede and replace the Prior Agreement and any other prior agreements, representations or understandings (whether written, oral, implied or otherwise) between Executive and the Company and, together with the NIA, constitutes the complete agreement between Executive and the Company regarding the subject matter set forth herein. This Agreement may not be amended or modified, except by an express written agreement signed by both Executive and a duly authorized officer of the Company. The terms of this Agreement and the resolution of any disputes as to the meaning, effect, performance or validity of this Agreement arising out of, related to, or in any way connected with, this Agreement, Executive's employment with the Company or any other relationship between Executive and the Company (the "**Disputes**") will be governed by California law, excluding laws relating to conflicts or choice of law. Executive and the Company submit to the exclusive personal jurisdiction of the federal and state courts located in California in connection with any Dispute or any claim related to any Dispute.

12. Definitions. The following terms have the meaning set forth below wherever they are used in this Agreement:

"**Code**" means the Internal Revenue Code of 1986, as amended.

* * * * *

IN WITNESS WHEREOF, the parties have executed this Employment Agreement as of the date set forth above.

ATARA BIOTHERAPEUTICS, INC.

/s/ Issac Ciechanover

By: Isaac Ciechanover, M.D.
Title: Chief Executive Officer

MITCHALL CLARK

/s/ Mitchall Clark

[Signature Page to Employment Agreement]

Exhibit 10.14

ATARA BIOTHERAPEUTICS, INC.

EMPLOYMENT AGREEMENT

This Employment Agreement (the "**Agreement**") is made and entered into as of March 31, 2014, by and between Atara Biotherapeutics, Inc., a Delaware corporation (the "**Company**") and Gad Soffer ("**Executive**"). From and following the date hereof, this Agreement shall replace and supersede that certain letter agreement between the Company and Executive dated February 1, 2013 (the "**Prior Agreement**").

RECITALS

WHEREAS, the Company and Executive are currently parties to the Prior Agreement and wish to enter into this Agreement as set Forth herein in connection with a share exchange, pursuant to which each of Nina Biotherapeutics, Inc., Pinta Biotherapeutics, Inc. and Santa Maria Biotherapeutics, Inc. (each a "**Project Entity**") shall become wholly-owned subsidiaries of the Company (the "**Share Exchange**");

NOW THEREFORE, in consideration of the mutual promises and covenants contained herein and certain other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

AGREEMENT

1. **Duties and Scope of Employment**. Executive will remain employed as the Company's Chief Operating Officer, and Executive will report to the Company's Chief Executive Officer. This is a full-time position. Executive's responsibilities will encompass, but will not be limited to, finance, accounting, facilities, legal, human resources and other functions, and Executive's principal place of business with the Company will be in the San Francisco Bay area. While Executive renders services to the Company, Executive will not engage in any other employment, consulting or other business activity (whether full-time or part-time) that would create a conflict of interest with the Company. By signing this Agreement Executive reaffirms to the Company that executive has no contractual commitments or other legal obligations that would prohibit Executive from performing his duties for the Company.

2. **Cash Compensation**. The Company will pay Executive a salary at the rate of $252,350 per year (the "**Base Salary**"), payable in accordance with the Company's standard payroll schedule. This salary will be subject to adjustment pursuant to the Company's employee compensation policies in effect from time to time. In addition, Executive will be eligible to be considered for an incentive bonus for each fiscal year of the Company. The bonus (if any) will be awarded based on the achievement of milestones to be established mutually by Executive and the Company's Board of Directors within the first two scheduled Board meetings. Executive's target bonus will he equal to 25% of the Base Salary. Any bonus earned for a fiscal year will be paid within 2 ½ months after the close of that fiscal year, but only if Executive is still employed by the Company at the time of payment. The determinations of the Company's Board of Directors with respect to Executive's bonus will be final and binding.

3. **Employee Benefits**. The Company's benefits, payroll and other human resource management services will continue to be provided through TriNet Employer Group, Inc. ("**TriNet**"), a

professional employer organization. As a result of the Company's arrangement with TriNet, TriNet will be considered Executive's "employer of record" for these purposes. In addition, Executive will be entitled to paid time off in accordance with the Company's paid time off policy, as in effect from time to time.

4. **Equity Compensation**. Executive currently holds restricted stock units (the "**Prior Awards**") covering 286,230 shares of the Company's common stock (post Share Exchange). These equity awards will continue to be governed by the terms of the applicable equity plans and award agreements.

5. **Taxes**. All payments made by the Company (or any Company affiliate) to Executive or Executive's estate or beneficiaries will be subject to tax withholding pursuant to any applicable laws or regulations. Executive will be solely liable and responsible for the payment or Executive's taxes arising us a result of any payment provided to Executive in connection with Executive's employment including without limitation any unexpected or adverse tax consequences. Any such payments or benefits provided to Executive are intended to be exempt from or comply with the requirements of section 409A of the Code. In the event any payment or benefit is deemed to be subject to section 409A of the Code, Executive consents to the Company adopting such conforming amendments as the Company deems necessary, in its reasonable discretion, to comply with section 409A of the Code. In addition, if Executive is a specified employee (within the meaning of Code Section 409A) at the time of Executive's separation from service, then to the extent necessary to comply with Code Section 409A and avoid the imposition of taxes under Code Section 409A, the payment or certain benefits owed to Executive under this Agreement will be delayed and instead paid (without interest) to Executive upon the earlier of the first business day of the seventh month following Executive's separation from service or Executive's death. Additionally, no payments or benefits will constitute excess parachute payments as defined under Code Section 280G.

6. **Proprietary Information and Inventions Agreement**. Executive previously signed standard Proprietary Information and Inventions Agreements with the Company and each Entity dated as of February 5, 2013 (collectively the "**PIIA**"), which remain in full force and effect pursuant to its terms.

7. **Employment Relationship**. Employment with the Company is for no specific period of time. Executive's employment with the Company is "at will," meaning that either Executive or the Company may terminate Executive's employment at any time and for any reason, with or without cause. Any contrary representations that may have been made to Executive is superseded by this Employment Agreement. This is the full and complete agreement between Executive and the Company on this term. Although Executive's job duties, title, compensation and benefits, as well as the Company's personnel policies and procedures, may change from time to time, the "at will" nature of Executive's employment may only be changed in an express written agreement signed by Executive and a duly authorized officer of the Company (other than Executive).

8. **Miscellaneous**. All forms of compensation referred to in this Employment Agreement are subject to reduction to reflect applicable withholding and payroll taxes and other deductions required by law. Executive is encouraged to obtain Executive's own tax advice regarding Executive's compensation from the Company. Executive agrees that the Company does not have a duty to design its compensation policies in a manner that minimizes Executive's tax liabilities, and Executive will not make any claim against the Company or its Board of Directors related to tax liabilities arising from Executive's compensation.

9. **Interpretation, Amendment and Enforcement**. This Agreement, and any equity agreements referred to herein, supersede and replace the Prior Agreement and any other prior agreements, representations or understandings (whether written, oral, implied or otherwise) between Executive and the Company and, together with the PIIA, constitutes the complete agreement between Executive and the Company regarding the subject matter so forth herein. This Agreement may not be amended or modified, except by an express written agreement signed by both Executive and a duly authorized officer of the Company. The terms of this Agreement and the resolution of any disputes as to the meaning, effect, performance or validity of this Agreement arising out of related to or in any way connected with, this Agreement, Executive's employment with the Company or any other relationship between Executive and the Company (the "**Disputes**") will be governed by California law, excluding laws relating to conflicts or choice of law. Executive and the Company submit to the exclusive personal jurisdiction of the federal and state courts located in California in connection with any Dispute or any claim related to any Dispute.

10. **Definitions**. The following terms have the meaning set forth below wherever they are used in this Agreement:

"**Cause**" means (a) Executive's unauthorized use or disclosure of the Company's confidential information or trade secrets, which use or disclosure causes material harm to the Company, (b) Executive's material breach of any agreement between Executive and the Company, (c) Executive's material failure to comply with the Company's written policies or rules, (d) Executive's conviction of or Executives plea of "guilty" or "no contest" to, a felony under the laws of the United States or any State, (c) Executive's gross negligence or willful misconduct in connection with the performance of Executive's duties for the Company, which negligence or misconduct results in material harm to the Company, (f) Executive's continuing failure to perform lawful and reasonable assigned duties after receiving written notification of the failure from the Company and a reasonable opportunity to correct such failure following Executives receipt of that notice, or (g) Executive's failure to cooperate in good faith with a governmental or internal investigation of the Company or its directors, officers or employees, if the Company has requested Executive's cooperation.

"**Change in Control**" means,

(i) the merger, consolidation, recapitalization, or reorganization of the Company, other than a merger, consolidation, recapitalization or reorganization which would result in the voting securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity) more than fifty percent (50%) of the total voting power represented by the voting securities of Company or such surviving entity outstanding immediately after such merger, consolidation, recapitalization or reorganization;

(ii) the sale or disposition by the Company's stockholders of more than fifty percent (50%) of the total voting securities of the Company;

(iii) a complete liquidation or dissolution of the Company;

(iv) the sale or disposition by the Company of all or substantially all of its assets; or

(v) the exclusive licensing to a third party of all or substantially all of the Company's intellectual property.

Notwithstanding the foregoing, the following transactions shall not constitute a Change in Control: (i) a transaction the sole purpose of which is to change the state of the Company's incorporation or to create a holding company that will be owned in substantially the same proportions by the persons who held the Company's securities immediately before such transaction; (ii) a transaction or series of related transactions involving the sale of securities by the Company primarily for financing purposes; (iii) a merger or consolidation involving the Company and one or more companies under common management control with the company; or (iv) an IPO. If the timing of payments provided under an RSU Award agreement is based on or triggered by a Change in Control then, to extent necessary to avoid violating Code Section 409A, a Change in Control must also constitute a "change in control event" (as, defined under Code Section 409A regulations and applicable guidance).

"**Code**" means the internal Revenue Code of 1986, as amended.

"**IPO**" means an initial public offering by the applicable Entity or the Company of its equity securities pursuant to an effective registration statement filed with the SEC.

"**Project Entity Change in Control**" means, with respect to an Entity;

(i) a merger, spin-off or similar transaction involving (directly or indirectly) a Project Entity and immediately after the consummation of such merger, spinoff or similar transaction, the stockholders of the Company immediately prior thereto do not own, directly or indirectly, either (A) outstanding voting securities representing more than 50% of the combined outstanding voting power of the Project Entity in such transaction or (B) more than 50% of the combined outstanding voting power of the patent of the Project Entity in such transaction, in each case in substantially the same proportions as their ownership of the outstanding voting securities of the Company immediately prior to such transaction;

(ii) the sale or disposition by the Company of all or substantially all of the assets of a Project Entity; or

(iii) the exclusive licensing to a third party of all or substantially all of the Project Entity's intellectual property.

Notwithstanding the foregoing, the following transactions shall not constitute a Change in Control: (i) a transaction the sole purpose of which is to change the state of such Entity's incorporation or to create a holding company that will be owned in substantially the same proportions by the persons who held the applicable Entity's securities immediately before such transaction; (ii) n transaction of series of related transactions involving the sale of securities by such Entity primarily for financing purposes; (iii) merger or consolidation involving such Entity and one or more companies under common management control with such Entity; or (iv) an IPO. If the timing of payments provided under an RSU Award agreement is based on or triggered by a Project Entity Change in Control then, to extent necessary to avoid violating Code Section 409A, a Project Entity Change in Control must also constitute a "change in control event" (as defined under Code Section 409A regulations and applicable guidance).

* * * * *

IN WITNESS WHEREOF, the parties have executed this Employment Agreement as of the date set forth above.

ATARA BIOTHERAPEUTICS, INC.

/s/ Isaac Ciechanover

By: Isaac Ciechanover, M.D.
Title: Chief Executive Officer

GAD SOFFER

/s/ Gad Soffer

[Signature Page to Employment Agreement]

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Exhibit 10.15

EXCLUSIVE LICENSE AGREEMENT

by and between

AMGEN INC.

and

NINA BIOSCIENCES, INC.

Dated as of September 7, 2012

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

LIST OF SCHEDULES

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

EXCLUSIVE LICENSE AGREEMENT

This **EXCLUSIVE LICENSE AGREEMENT** (this **"Agreement"**) is entered into as of September 7, 2012 (the **"Signing Date"**) by and between **AMGEN INC.**, a Delaware corporation having an address at One Amgen Center Drive, Thousand Oaks, California 91320 (**"Amgen"**), and **NINA BIOSCIENCES, INC.**, a Delaware corporation (**"Company"**). Company and Amgen are sometimes referred to herein individually as a **"Party"** and collectively as the **"Parties"**.

RECITALS

WHEREAS, Amgen is a company engaged in the research, development, manufacturing and commercialization of pharmaceutical and biotechnology products;

WHEREAS, Amgen possesses certain rights to patents and other intellectual property related to its proprietary compounds AMG 842 and M43, comprising the respective amino acid sequences set forth on the Products Schedule (collectively, the **"Products"** and each individually, a **"Product"**);

WHEREAS, Company desires to license from Amgen such intellectual property rights, and to commercially develop, manufacture, use and distribute the Products based upon the same throughout the Territory (defined below); and

WHEREAS, Amgen desires to grant such a license to Company in accordance with the terms and conditions of this Agreement.

NOW, THEREFORE, in consideration of the premises and the mutual promises and covenants contained in this Agreement, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereto agree as follows:

ARTICLE 1. DEFINITIONS

All references to particular Schedules, Articles or Sections shall mean the Schedules to, and Articles and Sections of, this Agreement, unless otherwise specified. For the purposes of this Agreement and the Schedules hereto, the following words and phrases shall have the following meanings:

"Abandoned Patent Right" has the meaning set forth in Section 4.2 (Amgen Step-In Right).

"Affiliate" means, with respect to any Person, any other Person which controls, is controlled by or is under common control with such Person, for as long as such control exists. For purposes of this Section, "control" means the direct or indirect ownership of more than fifty percent (50%) of the voting or economic interest of a Person, or the power, whether pursuant to contract, ownership of securities or otherwise, to direct the management and policies of a Person. For clarity, once a Person ceases to be an Affiliate of a Party, then, without any further action, such Person shall cease to have any rights, including license and sublicense rights, under this Agreement by reason of being an Affiliate of such Party.

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"Agreement" has the meaning set forth in the Preamble.

"Amgen" has the meaning set forth in the Preamble.

"Amgen Acquiree" has the meaning set forth in Section 11.9 (Sale Transaction or Amgen Acquisition).

"Amgen Acquisition" has the meaning set forth in Section 11.9 (Sale Transaction or Amgen Acquisition).

"Amgen Cell Line" shall mean that certain proprietary cell line that Amgen has developed for the generation of one of the Products. For avoidance of doubt, the Amgen Cell Line is Licensed Materials hereunder.

"Amgen Indemnified Parties" has the meaning set forth in Section 8.1.2 (By Company).

"Audited Party" has the meaning set forth in Section 3.9 (Records and Audits).

"BLA" means (a) a Biologics License Application, supplemental Biologics License Application, or similar application filed or to be filed with the FDA, as described in Title 21 of the U.S. Code of Federal Regulations, Part 601, *et seq.*, or (b) any corresponding foreign application in another country or regulatory jurisdiction in the Territory, including, in the case of the European Union, a Marketing Approval Application filed with the EMA pursuant to the centralized approval procedure or with the applicable Regulatory Authority of a country in the European Union with respect to the mutual recognition or any other national approval procedure.

"cGMP" means the FDA's current good manufacturing practices, as specified in 21 C.F.R. §§ 210 and 211 and the FDA's guidance documents and all successor regulations and guidance documents thereto, and foreign equivalents thereof with respect to the European Union and Canada.

"Closing Date" means the first date on which the Company sells Series A Preferred Stock and Series A-1 Preferred Stock to its initial investors, including Amgen.

"Commercially Reasonable Efforts" means those efforts and resources commensurate with those efforts commonly used in the biopharmaceutical industry by a company of comparable size in connection with the development or commercialization of biopharmaceutical products that are of similar status, including, with respect to commercial potential, the proprietary position of the product, the regulatory status and approval process, the probable profitability of the applicable product, and other relevant factors such as technical, legal, scientific or medical factors. In determining the level of efforts constituting **"Commercially Reasonable Efforts,"** the following shall [*].

"Company" has the meaning set forth in the Preamble.

"Company Indemnified Parties" has the meaning set forth in Section 8.1.1 (By Amgen).

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"Confidential Information" has the meaning set forth in Section 9.1.1 (Confidential Information).

"Control" or **"Controlled"** means, with respect to any Know-How, material, Patent Right, or other intellectual property right, the possession (whether by ownership or license) by a Party or its Affiliates of the ability to grant to the other Party a license or access as provided herein to such Know-How, material, Patent Right, or other intellectual property right, without violating the terms of any agreement or other arrangement with any Third Party, or being obligated to pay any royalties or other consideration therefor, in existence as of the time such Party or its Affiliates would first be required hereunder to grant the other Party such license or access.

"Cover" means (a) with respect to Licensed Know-How, the Exploitation of the product would require use of such Licensed Know-How, and (b) with respect to a Patent Right, a Valid Claim would (absent a license thereunder or ownership thereof) be Infringed by the Exploitation of the product; *provided* that in determining whether a Valid Claim that is a claim of a pending application would be Infringed, it shall be treated as if issued as then currently prosecuted. Cognates of the word **"Cover"** shall have correlative meanings.

"Defending Party" has the meaning set forth in Section 4.4 (Defense of Third Party Claims).

"Diligence Notice" has the meaning set forth in Section 5.2 (Diligence).

"Disclosing Party" has the meaning set forth in Section 9.1.1 (Confidential Information).

"Dispute" has the meaning set forth in Section 10.2.1(b).

"EMA" means the European Medicines Agency or any successor entity thereto.

"Enforcing Party" has the meaning set forth in Section 4.3.3 (Progress Reports; Participation).

"Exclusivity Period" has the meaning set forth in Section 2.3 (Right of First Negotiation).

"Exploit" means to research, develop, improve, make, use, offer for sale, sell, import, export or otherwise exploit, or transfer possession of or title in, a product. Cognates of the word **"Exploit"** shall have correlative meanings.

"FDA" means the United States Food and Drug Administration or any successor entity thereto.

"Field" means any and all human and veterinary uses.

"First Commercial Sale" means, with respect to any Product in any country, the first sale to a Third Party for end use or consumption of such Product in such country after a BLA has been granted in such country for such Product.

"Framework Patents" means any Patent Right (other than a Licensed Patent) Controlled by Amgen or its Affiliates as of the Effective Date that: (i) has a claim that is infringed by the amino acid sequence of a Product, (ii) has a claim that is infringed by a nucleic acid sequence that encodes the amino acid sequence of a Product, or (iii) has a claim that claims Licensed Know How.

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"FTE" means the equivalent of the work of one employee full time for one year consisting of at least a total of [*] weeks or [*] hours per year (excluding vacations and holidays). No one person shall be permitted to account for more than one FTE.

"FTE Rate" means $[*] per FTE per year.

"GAAP" means the then-current generally accepted accounting principles in the United States as established by the Financial Accounting Standards Board or any successor entity or other entity generally recognized as having the right to establish such principles in the United States, in each case consistently applied. Unless otherwise defined or stated herein, financial terms shall be calculated under GAAP.

"Governmental Authority" means any court, agency, department, authority or other instrumentality of any national, state, county, city or other political subdivision.

"IND" means an Investigational New Drug Application filed with the FDA for human clinical testing of a drug or any foreign equivalent thereof.

"Indication" means the disease or condition for which an IND has been filed.

"Infringe" or **"Infringement"** means any infringement as determined by Law, including, without limitation, direct infringement, contributory infringement or any inducement to infringe.

"Issuing Party" has the meaning set forth in Section 9.2.2 (Review).

"Know-How" means techniques, technology, trade secrets, inventions (whether patentable or not), methods, know-how, data and results (including pharmacological, toxicological and clinical data and results), analytical and quality control data and results, regulatory documents, and other information, compositions of matter, cells, cell lines, assays, animal models and other physical, biological, or chemical material.

"Law" means, individually and collectively, any and all laws, ordinances, rules, directives, administrative circulars and regulations of any kind whatsoever of any Governmental Authority within the applicable jurisdiction.

"Licensed Know-How" means all Know-How that both (a) is Controlled by Amgen and (b) was actually used by Amgen in its development of the Products at such time as Amgen last actively developed the applicable Product prior to the Closing Date, including the Know-How set forth on the Licensed Know-How Schedule. [*]

"Licensed Materials" means those certain materials set forth on the Licensed Materials Schedule.

"Licensed Patents" means the Patent Rights set forth on the Licensed Patents Schedule.

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"Losses" has the meaning set forth in Section 8.1.1 (By Amgen).

"Marketing Approval" means all approvals, licenses, registrations or authorizations of the Regulatory Authority in a country, necessary for the manufacture, use, storage, import, marketing and sale of a Product in such country.

"Milestone Events" has the meaning set forth in Section 3.3 (Milestone Payments).

"Milestone Payments" has the meaning set forth in Section 3.3 (Milestone Payments).

"Negotiation Notice" has the meaning set forth in Section 2.3 (Right of First Negotiation).

"Net Sales" means, with respect to any Product, the gross sales price of such Product sold by Company, its Affiliates or Sublicensee(s) (the **"Selling Party"**) for the sale of such Product to Third Parties, less:

(a) non-recoverable sales taxes, excise taxes, use taxes, value-added tax, and duties paid by the Selling Party in relation to Product(s) and any other equivalent governmental charges imposed upon the importation, use or sale of Product(s) (excluding taxes when assessed on income derived from sales);

(b) credits and allowances (actually allowed or paid) for defective or returned Product(s), including allowances for spoiled, damaged, out-dated, rejected, returned, withdrawn or recalled Product(s);

(c) reasonable fees paid to wholesalers, distributors, selling agents (excluding any sales representatives of a Selling Party), group purchasing organizations, Third Party payors, other contractees and managed care entities;

(d) reasonable transportation charges relating to Product(s), including handling charges and insurance premiums relating thereto to the extent included as a separate entry on the invoice for such product (*provided* that [*] items in this clause (d) shall [*] for the relevant period);

(e) retroactive price reductions actually granted to the Third Party applicable to sales of such product;

(f) trade, cash, prompt payment and/or quantity discounts, actually allowed and taken directly by the Third Party, and mandated discounts; and

(g) refunds, rebates, chargebacks and other allowances or payments to Governmental Authorities.

Net Sales shall be determined from books and records maintained in accordance with GAAP, consistently applied throughout the organization and across all products of the entity whose sales of Products are giving rise to Net Sales.

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Where a Product is sold in combination with other therapeutically active ingredients, the Net Sales applicable to such transaction shall be calculated by multiplying the total Net Sales of such combined product by the fraction A/(A+B), where A is the actual price of the Product in the same dosage amount or quantities in the applicable country during the applicable quarter if sold separately, and B is the sum of the actual prices of all other therapeutics with which the Product is combined, in the same dosage amount or quantities in the applicable country during the applicable quarter if sold separately. If A or B cannot be determined because values for the Product or other therapeutics with which the Product is combined are not available separately in a particular country, then Amgen and Company shall discuss an appropriate allocation for the fair market value of the Product and other therapeutics with which the Product is combined to mutually determine Net Sales for the relevant transactions based on an equitable method of determining the same that takes into account, in the Territory, variations in potency, the relative contribution of each therapeutically active ingredient, and relative value to the end user of each therapeutically active ingredient.

Net Sales shall also include, with respect to any Product sold or otherwise disposed of for any consideration other than an exclusively monetary consideration on bona fide arm's length terms, an amount equal to the average sales price for such Product having the same dosage form and strength during the applicable reporting period in the country where such sale or other disposal occurred when such Product is sold alone and not with other products, or if such Product is not sold alone in such country during the applicable reporting period, then an amount equal to the average sales price during the applicable reporting period generally achieved for such Product having the same dosage form and strength in the rest of the Territory.

Sales of Product(s) between or among Company and its Affiliates or Sublicensees shall be excluded from the computation of Net Sales and no payments shall be payable on such sales except where such Affiliates or Sublicensees are end users.

"Out-License" has the meaning set forth in Section 2.3 (Right of First Negotiation).

"Party" has the meaning set forth in the Preamble.

"Patent Rights" means any provisional and non-provisional patents and patent applications, together with all additions, divisions, continuations, continuations-in-part, substitutions, reissues, re-examinations, issued patents, substitutes, foreign counterparts, extensions, registrations, patent term extensions, supplemental protection certificates, renewals and the like with respect to any of the foregoing.

"Permitted CMO" means (a) a Third Party commercial manufacturing organization identified on the attached Permitted CMO Schedule (and all such Third Party's Affiliates), as such schedule may be updated by mutual written agreement by the Parties from time to time or (b) any other party deemed to be a Permitted CMO pursuant to the terms of Section 2.4.2.

"Permitted CMO Agreement" has the meaning set forth in Section 2.4.2(a) (Transfer of Licensed Know-How and Licensed Materials).

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"Permitted CMO Request" has the meaning set forth in Section 2.4.2(d) (Transfer of Licensed Know-How and Licensed Materials).

"Person" means any corporation, limited or general partnership, limited liability company, joint venture, trust, unincorporated association, governmental body, authority, bureau or agency, any other entity or body, or an individual.

"Phase 1 Clinical Trial" means any human clinical trial of a Product that satisfies the requirements of 21 C.F.R. § 312.21(a), or its successor regulation, or its non-United States equivalents, including the portion of a combination Phase 1 Clinical Trial and Phase 2 Clinical Trial that is the Phase 1 component, in accordance with the applicable protocol and as reasonably designated by Company.

"Phase 2 Clinical Trial" means any human clinical trial of a Product that satisfies the requirements of 21 C.F.R. § 312.21(b), or its successor regulation, or its non-United States equivalents, including the portion of a combination Phase 2 Clinical Trial and Phase 3 Clinical Trial that is the Phase 2 component, in accordance with the applicable protocol and as reasonably designated by Company.

"Phase 3 Clinical Trial" means any human clinical trial of a Product that satisfies the requirements of 21 C.F.R. § 312.21(c), or its successor regulation, or its non-United States equivalents, including the portion of a combination Phase 2 Clinical Trial and Phase 3 Clinical Trial that is the Phase 3 component, in accordance with the applicable protocol and as reasonably designated by Company.

"Pivotal Trial" means (a) a Phase 2 Clinical Trial, or a combination Phase 2 Clinical Trial and Phase 3 Clinical Trial, that (taken together with any other trials completed prior to or concurrently with such trial) is intended to support Marketing Approval for a Product by the relevant Regulatory Authority in the indication under study, or (b) a Phase 3 Clinical Trial.

"Pre-Existing Agreements" means those agreements listed on the Pre-Existing Agreements Schedule.

"Product(s)" has the meaning set forth in the Recitals.

"Receiving Party" has the meaning set forth in Section 9.1.1 (Confidential Information).

"Regulatory Authority" means any Governmental Authority or other authority responsible for granting Marketing Approvals for Products, including the FDA, EMA and any corresponding national or regional regulatory authorities.

"Regulatory Change" has the meaning set forth in Section 5.2 (Diligence).

"Regulatory Exclusivity" means, with respect to a Product in a country, any exclusive marketing rights or data exclusivity rights conferred by the applicable Regulatory Authority in such country with respect to the Product, other than a Patent Right.

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"Regulatory Filing" means any filing with any Governmental Authority with respect to the research, development, manufacture, distribution, pricing, reimbursement, marketing or sale of a Product.

"Release" has the meaning set forth in Section 9.2.2 (Review).

"Reviewing Party" has the meaning set forth in Section 9.2.2 (Review).

"Royalty Term" has the meaning set forth in Section 3.4 (Royalties).

"Sale Transaction" has the meaning set forth in Section 11.8 (Successors and Assigns).

"Selling Party" has the meaning set forth in the definition of "Net Sales".

"Signing Date" has the meaning set forth in the Preamble.

"Specified Diligence Failure" has the meaning set forth in Section 5.2 (Diligence).

"Sublicensee(s)" means any Person other than an Affiliate of Company to which Company has granted a sublicense under this Agreement.

"Summary" has the meaning set forth in Section 2.3 (Right of First Negotiation).

"Term" has the meaning set forth in Section 10.1 (Term).

"Terminated Product" means (a) in the event of a termination of this Agreement by Company pursuant to Section 10.3.2 (Discretionary Termination), the applicable terminated Products and (b) in the event of any other termination of this Agreement, all Products.

"Territory" means the entire world.

"Third Party" means a Person other than (a) Amgen or any of its Affiliates and (b) Company or any of its Affiliates.

"Third Party Acquirer" has the meaning set forth in Section 11.9 (Sale Transaction or Amgen Acquisition).

"Transaction Notice" has the meaning set forth in Section 2.3 (Right of First Negotiation).

"United States" or **"U.S."** means the United States of America (including the District of Columbia).

"Valid Claim" means a claim of any issued and unexpired patent or patent application within the Licensed Patents and that has not been held invalid or unenforceable by a final decision of a court or governmental agency of competent jurisdiction, which decision can no longer be appealed or was not appealed within the time allowed; *provided* that if a claim of a pending patent application within the Licensed Patents [*], such claim shall not constitute a Valid Claim for the purposes of this Agreement [*].

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ARTICLE 2. LICENSE GRANT; CLOSING

Section 2.1 Grant. Subject to the terms and conditions of this Agreement, commencing on the Closing Date, Amgen hereby grants to Company (a) an exclusive (even as to Amgen and its Affiliates), royalty bearing, sublicenseable (but only in accordance with Section 2.2 (Sublicenses) and Section 2.3 (Right of First Negotiation)), license under the Licensed Patents, (b) a non-exclusive, royalty bearing, sublicenseable (but only in accordance with Section 2.2 (Sublicenses) and Section 2.3 (Right of First Negotiation)) license under the Licensed Know-How, and (c) an exclusive (even as to Amgen and its Affiliates) license and right of reference, with the right to grant sublicenses and further rights of reference (but only in accordance with Section 2.2 (Sublicenses) and Section 2.3 (Right of First Negotiation)), under any existing Regulatory Filings that Amgen or any of its Affiliates Controls with respect to the Products; in each case, to Exploit Product(s) in the Field in the Territory during the Term. Notwithstanding the foregoing, the Licensed Know-How shall be sublicenseable only in connection with the rights of Company with respect to Products and not with respect to any other products or services.

2.1.1 Covenant Not to Sue. In addition to the licenses set forth in this Section 2.1 (Grant) above, commencing on the Closing Date, Amgen hereby covenants not to sue Company, its Affiliates or any Sublicensee under the Framework Patents with respect to the Exploitation of Products in the Field in the Territory. Subject to Section 11.8 (Successors and Assigns), the Company may transfer this Covenant Not to Sue. Amgen shall require any Amgen successor in interest to the Framework Patents to also covenant not to sue Company, its Affiliates or any Sublicensee under the Framework Patents with respect to the Exploitation of Products in the Field in the Territory. Should Amgen fail to secure such a covenant from a successor in interest, then immediately prior to the transfer of the Framework Patents to the successor in interest, Amgen will be deemed to have granted to Company a non-exclusive, fully paid-up, royalty-free, sublicenseable license under the Framework Patents to Exploit Product(s) in the Field in the Territory during the Term.

Section 2.2 Sublicenses. Subject to compliance by Company with its obligations under Section 2.3 (Right of First Negotiation) below, commencing on the Closing Date, the licenses granted in Section 2.1 (Grant) (including, if applicable, in the last sentence of Section 2.1.1 (Covenant Not to Sue)) may be sublicensed, in full or in part, by Company to its Affiliates and Third Parties (with the right to sublicense through multiple tiers), *provided* that as a condition precedent to and requirement of any such sublicense:

(a) Any such permitted sublicense shall be in writing and shall be consistent with and subject to the terms and conditions of this Agreement;

(b) Company shall be responsible for any and all obligations of such Sublicensee as if such Sublicensee were "Company" hereunder; and

(c) Any such Sublicensee shall agree in writing to be bound by the substantially similar obligations of Company hereunder that are relevant to the rights sublicensed by Company to Sublicensee under such sublicense agreement, including with respect to Article 9 (Confidentiality), and Sections 2.7 (Limited Exploitation Rights), 8.1 (Indemnity), 10.2.2 (Termination for IP Challenge), and 10.5 (Effects of Termination).

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Company shall provide Amgen, within [*] days following execution of each sublicense, prompt written notice thereof (which notice shall include the name of the Sublicensee and the general scope of such sublicense). Thereafter, upon Amgen's reasonable request, Company shall provide to Amgen a copy of any such sublicense agreement executed by Company; *provided* that the financial terms (and any other terms Company is required to keep confidential) of any such sublicense agreement may be redacted to the extent not pertinent to an understanding of a Party's rights or obligations under this Agreement.

Section 2.3 Right of First Negotiation.

2.3.1 If Company seeks to grant a sublicense (an **"Out-License"**) to a Third Party for development and/or commercialization of AMG 842 (or, to the extent Company has de-prioritized AMG 842, the backup Product thereto for which Company is actively seeking to fulfill its diligence obligation hereunder pursuant to Section 5.2 (Diligence)), then Company shall notify Amgen in advance in writing and provide a non-confidential summary of the Product that is the subject of the proposed sublicense, as well as the intended scope (which the Parties agree shall be initially for worldwide rights) of the Out-License (a **"Transaction Notice"**). If Amgen desires to evaluate such Out-License, then Amgen shall notify Company within [*] days of its receipt of the Transaction Notice (a **"Negotiation Notice"**). Promptly after Company's receipt of a Negotiation Notice, Company shall provide Amgen with a confidential summary of the Product Company is seeking to Out-License (a **"Summary"**), including existing material clinical and preclinical data, as well as such other information in Company's possession that Amgen may reasonably request, which Summary shall be deemed to be Confidential Information of Company under this Agreement. For [*] following Amgen's receipt of a Summary (the **"Exclusivity Period"**), Amgen shall have an exclusive right to negotiate an exclusive, royalty-bearing license to such Product from Company. If Amgen (i) does not deliver a Negotiation Notice to Company within the applicable [*] period after receipt of the Negotiation Notice, (ii) does not deliver to Company a written proposal for the terms of an Out-License to Amgen during the Exclusivity Period, or (iii) declines in writing the Out-License after review of the Summary, then Amgen shall be deemed to have waived its rights under this Section 2.3 (Right of First Negotiation) with respect to such Product. If Amgen and Company do not mutually agree on the terms of an Out-License for such Product to Amgen within the Exclusivity Period, Company shall be free to negotiate an Out-License for such Product with any Third Party, subject to the terms of Section 2.2 (Sublicenses) and Section 2.3.2. For clarity, an Out-License shall not include the grant of a sublicense to a contract manufacturer or a contract research organization for the purpose of manufacturing or developing Products for Company or to a Third Party distributor selling finished Product purchased from Company, and this Section 2.3 (Right of First Negotiation) shall not restrict Company in any manner with respect to such a sublicense.

2.3.2 If Company's board of directors approves the initiation of a process for (i) a Sale Transaction or (ii) a response to an unsolicited offer for an Out-License, in each case related to Company's rights in AMG 842 (or, to the extent Company has de-prioritized AMG 842, the backup Product thereto for which Company is actively seeking to fulfill its diligence obligation hereunder pursuant to Section 5.2 (Diligence)), then Company shall notify Amgen concurrently with any other notifications required hereunder (*provided* that a signed letter sent via electronic or facsimile transmission shall qualify as such written notice) and provide the intended scope (*i.e.*, field, territory and other relevant terms) of the Out-License and/or Sale Transaction.

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2.3.3 Upon the completion of an Initial Public Offering (as defined in the investor rights agreement to be entered into by the Parties) or a sale of all or substantially all of Company's assets or business, Amgen's rights under this Section 2.3 (Right of First Negotiation) shall terminate.

Section 2.4 Transfer of Licensed Know-How and Licensed Materials. Amgen shall transfer to Company (or, in the case of Amgen's transfer of the Amgen Cell Line, to the Permitted CMO) the Licensed Know-How listed on the Licensed Know-How Schedule and the Licensed Materials listed on the Licensed Materials Schedule, in accordance with a schedule to be mutually agreed by the Parties (*provided* such transfer must be completed within [*] after the Closing Date), and provide limited consulting support, in accordance with this Section 2.4 (Transfer of Licensed Know-How and Licensed Materials). Following the Signing Date, the Parties will in good faith reasonably cooperate to review and, if necessary, update the Licensed Know-How and Licensed Materials Schedules to correct and/or supplement such Schedules (and, as necessary, timely deliver the relevant Licensed Know-How and Materials to the Company.

2.4.1 Amgen shall provide, at its expense, consulting support (not to exceed [*] in the aggregate) in connection with such transfer and the Exploitation of Products in the Territory during the [*] period after the Closing Date. If Company requires additional consulting support in excess of [*] in the aggregate or beyond such period after the Closing Date in connection with such transfer or the Exploitation of Products in the Territory, then Company may request such additional support in writing. Amgen shall notify Company within [*] after receipt of such request whether it, in its sole discretion, is willing to provide such additional consulting support, which support shall be at Company's expense, at the FTE Rate for the relevant Amgen employees.

2.4.2 With respect to Amgen's transfer of the Amgen Cell Line, the Parties agree that the following procedures shall apply:

(a) Prior to such transfer, Company shall designate, and enter into a binding agreement with, one of the Permitted CMOs, which agreement shall provide for, among other things, (i) confidentiality and non-use provisions at least as protective as those set forth hereunder under Section 9.1 (Confidential Information) and (ii) such additional provisions as are required to comply with the manufacturing and other limitations set forth in this Section 2.4.2 (such agreement, the **"Permitted CMO Agreement"**). Upon Amgen's reasonable request, Company shall provide to Amgen a copy of any such Permitted CMO Agreement (including any material amendment thereto) executed by Company; *provided* that the financial terms (and any other terms Company is required to keep confidential) of any such agreement may be redacted to the extent not pertinent to Amgen's confirmation of the restrictive provisions set forth in this Section 2.4.2. Notwithstanding anything to the contrary, Company and Company's Sublicensees are deemed Permitted CMOs, and shall not be required to enter into a Permitted CMO Agreement prior to receiving the Amgen Cell Line or conducting any manufacturing activities in connection therewith, and Amgen shall deliver such cell lines to Company and/or Company's Sublicensees within a reasonable time following Company's written request. For avoidance of doubt, if Company (itself, or through a third party, Affiliate, or Sublicensee) [*] (excluding any [*], but including any [*]) [*], such [*] shall [*], and the Permitted CMO restrictions set forth herein shall [*].

(b) Following Company's and such Permitted CMO's entry into the Permitted CMO Agreement, Amgen shall, at the direction of Company, transfer the Amgen Cell Line to the Permitted CMO to generate the Products.

(c) Company agrees that it shall not, and it shall use its commercially reasonable efforts to cause the Permitted CMO not to: (i) reverse engineer or otherwise deconstruct the Amgen Cell Line or the initial Amgen cell culture media provided therewith, or to determine or to seek to determine information (including, but not limited to, the gene or amino acid sequence) or characteristics regarding the Amgen Cell Line or such media, other than as expressly required to manufacture the Products; (ii) clone, express, or otherwise produce any products or materials (including, without limitation, any progeny or derivatives thereof) from the Amgen Cell Line, other than as expressly permitted under this Agreement; (iii) notwithstanding anything to the contrary in Section 9.4.1 (Right to Publish), publish or otherwise publicly disclose the Amgen Cell Line; or (iv) permit any non-controlled security access to the Amgen Cell Line or otherwise transfer or provide any of the Amgen Cell Line to a Third Party or any of its Affiliates, other than as expressly required to manufacture the Products.

(d) Upon a termination or expiration of the Permitted CMO Agreement (including as a result of the appointment, with prior written notice to Amgen, by Company of a replacement Permitted CMO), the Permitted CMO shall promptly return any remaining Amgen Cell Lines and related Licensed Know-How and Licensed Materials to Amgen. If, at any time, Company desires to add a new Third Party commercial manufacturer to the Permitted CMO Schedule, it shall notify Amgen in writing (a **"Permitted CMO Request"**), and Amgen shall have the right, for [*] after receipt of such Permitted CMO Request, to inspect, at a reasonable time and on a reasonable basis (at Amgen's cost), such manufacturer's facilities to confirm its ability to fully comply with the restrictive provisions set forth in this Section 2.4.2. If Amgen rejects a Permitted CMO Request pursuant to the foregoing, it will notify Company of the reason(s) for such rejection and provide reasonable detail regarding the actions Company (or the applicable Third Party commercial manufacturer) may take to remedy such reasons for rejection. If Amgen does not reject a Permitted CMO Request within the [*] notice period, the applicable Third Party shall be deemed a Permitted CMO.

(e) Notwithstanding anything to the contrary, if, outside the scope of this Agreement, Amgen allows any Third Party commercial manufacturer access to or use of the Amgen Cell Line, such Third Party shall be deemed a Permitted CMO.

2.4.3 Company acknowledges that any materials transferred by Amgen to Company (or the Permitted CMO) under this Agreement are experimental in nature and may have unknown characteristics and therefore agrees to use prudence and reasonable care in the use, handling, storage, transportation and disposition and containment of any such materials. Accordingly, no such materials shall be used in any human application, including any clinical trial.

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Section 2.5 Intentionally omitted.

Section 2.6 No Other Rights. Each Party acknowledges that the rights and licenses granted under this Article 2 (License Grant) and elsewhere in this Agreement are limited to the scope expressly granted. Accordingly, except for the rights expressly granted under this Agreement, no right, title, or interest of any nature whatsoever is granted whether by implication, estoppel, reliance, or otherwise, by either Party to the other Party. All rights that are not specifically granted herein are reserved.

Section 2.7 Limited Exploitation Rights. Without limiting the provisions of Section 2.6 (No Other Rights), Company agrees (on behalf of itself and its Affiliates), and shall cause each of its Sublicensees to agree as a condition to the grant of a Sublicense, not to Exploit any Licensed Know-How or Licensed Patents in connection with any products or services other than Products.

ARTICLE 3. FEES, ROYALTIES AND PAYMENTS

Section 3.1 Intentionally omitted.

Section 3.2 Intentionally omitted.

Section 3.3 Milestone Payments. Company shall pay to Amgen certain milestone payments (**"Milestone Payments"**) following the first occurrence of certain milestone events, as set forth in Section 1 of the Milestones and Royalties Schedule (the **"Milestone Events"**). Company shall pay to Amgen the applicable Milestone Payment within [*] after the occurrence of the applicable Milestone Event. Each Milestone Payment is payable only once; except as set forth in Section 1 of the Milestones and Royalties Schedule, no Milestone Payment shall be payable for subsequent or repeated achievements of such Milestone Event with one or more of the same or different Products. Each of the Milestone Payments shall be non-refundable and non-creditable. In the event that a Milestone Event relating to clinical development for a specific Product is achieved and payment that was due and payable with respect to the previous Milestone Event(s) for such Product has not been made by Company, then Company shall promptly pay Amgen such unpaid payment with respect to such previous Milestone Event(s) for such Product.

Section 3.4 Royalties. Company shall pay to Amgen on a calendar quarterly basis the tiered royalties set forth in Section 2 of the Milestones and Royalties Schedule on annual Net Sales of Products sold by a Selling Party during the applicable Royalty Term, subject to the applicable deductions set forth in the Milestones and Royalties Schedule. Any such payment obligations accrued during a calendar quarter shall be made within [*] after the end of each such calendar quarter. Company's obligation to pay royalties with respect to a Product in a particular country shall commence upon the First Commercial Sale of such Product in such country and shall expire on a country-by-country and Product-by-Product basis on the later of (a) the date on which the Exploitation of a Product is no longer Covered by a Valid Claim of a Licensed Patent in such country, (b) the loss of Regulatory Exclusivity for the Product in such country, and (c) the tenth (10th) anniversary of the First Commercial Sale of the Product in such country (the **"Royalty Term"**).

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Section 3.5 Intentionally omitted.

Section 3.6 Method of Payment; Royalty Reporting. Unless otherwise agreed by the Parties, all payments due from Company to Amgen under this Agreement shall be paid in U.S. Dollars by wire transfer or electronic funds transfer of immediately available funds to an account designated by Amgen. After the First Commercial Sale of the first Product and until expiration of the last Royalty Term, Company shall prepare and deliver to Amgen royalty reports of the sale of Products by the Selling Parties for each calendar quarter within [*] after the end of each such calendar quarter specifying in the aggregate and on a Product-by-Product and country-by-country basis: (a) total gross amounts for Products sold or otherwise disposed of by a Selling Party; (b) amounts deducted by category in accordance with the definition of "Net Sales" in Article 1 from gross amounts to calculate Net Sales; (c) Net Sales; and (d) royalties payable.

Section 3.7 Currency Conversion. In the case of sales outside the United States, payments received by Company shall be expressed in the U.S. Dollar equivalent calculated on a quarterly basis in the currency of the country of sale and converted to their U.S. Dollar equivalent using the average rate of exchange over the applicable calendar quarter to which the sales relate, in accordance with (a) the then-current standard methods of Company or the applicable Sublicensee, to the extent reasonable and consistently applied and (b) GAAP; *provided* that if, at such time, Company does not use a rate for converting into U.S. Dollar equivalents that is maintained in accordance with GAAP, then Company shall use a rate of exchange which corresponds to the rate of exchange for such currency reported in *The Wall Street Journal*, Internet U.S. Edition at www.wsj.com, as of the last day of the applicable reporting period (or, if unavailable on such date, the first date thereafter on which such rate is available). Company shall inform Amgen as to the specific exchange rate translation methodology used for a particular country or countries.

Section 3.8 Late Payments. In the event that any payment due hereunder that is not the subject of a good faith dispute is not made when due, the payment shall accrue interest beginning on the day following the due date thereof, calculated at the annual rate of the sum of (a) [*] plus (b) the prime interest rate quoted by *The Wall Street Journal*, Internet U.S. Edition at www.wsj.com on the date said payment is due, the interest being compounded on the last day of each calendar quarter; *provided* that in no event shall said annual interest rate exceed the maximum rate permitted by Law. Each such payment when made shall be accompanied by all interest so accrued. Said interest and the payment and acceptance thereof shall not negate or waive the right of any Party to seek any other remedy, legal or equitable, to which it may be entitled because of the delinquency of any payment including, but not limited to termination of this Agreement as set forth in Article 10 (Term and Termination).

Section 3.9 Records and Audits. Company shall keep complete and accurate records relating to the calculations of Net Sales generated in the then current calendar year and payments required under this Agreement, and during the preceding [*]. Amgen shall have the right, once annually at its own expense, to have a nationally recognized, independent, certified public accounting firm, selected by it and subject to Company's prior written acceptance (which shall not be unreasonably withheld), review any such records of Company and its Affiliates and Sublicensees (the **"Audited Party"**) in the location(s) where such records are maintained by the Audited Party upon reasonable written notice (which shall be no less than [*] prior written notice) and during regular business hours and under obligations of strict confidence, for the sole

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purpose of verifying the basis and accuracy of payments made under Section 3.4 (Royalties) within the [*] period preceding the date of the request for review. No calendar year shall be subject to audit under this Section more than once. Company shall receive a copy of each such report concurrently with receipt by Amgen. Should such inspection lead to the discovery of a discrepancy to Amgen's detriment, Company shall, within [*] after receipt of such report from the accounting firm, pay any undisputed amount of the discrepancy together with interest at the rate set forth in Section 3.8 (Late Payments). Amgen shall pay the full cost of the review unless the underpayment of amounts due to Amgen is greater than [*] of the amount due for the entire period being examined, in which case Company shall pay the cost charged by such accounting firm for such review. Should the audit lead to the discovery of a discrepancy to Company's detriment, Company may credit the amount of the discrepancy, without interest, against future payments payable to Amgen under this Agreement, and if there are no such payments payable, then Amgen shall pay to Company the amount of the discrepancy, without interest, within [*] after Amgen's receipt of the report.

Section 3.10 Taxes.

3.10.1 Sales Tax. Company is responsible for the payment of any state or local, sales or use, or similar fees or taxes arising as a result of the transfer of Licensed Materials by Amgen to Company pursuant to Section 2.4 (Transfer of Licensed Know-How and Licensed Materials), and Company shall remit such fees or taxes to Amgen, as the collection agent, upon invoice.

3.10.2 Withholding. In the event that any Law requires Company to withhold taxes with respect to any payment to be made by Company pursuant to this Agreement, Company shall notify Amgen of such withholding requirement prior to making the payment to Amgen and provide such assistance to Amgen, including the provision of such documentation as may be required by a tax authority, as may be reasonably necessary in Amgen's efforts to claim an exemption from or reduction of such taxes. Company shall, in accordance with such Law, withhold taxes from the amount due, remit such taxes to the appropriate tax authority, and furnish Amgen with proof of payment of such taxes within [*] following the payment. If taxes are paid to a tax authority, Company shall provide reasonable assistance to Amgen to obtain a refund of taxes withheld, or obtain a credit with respect to taxes paid.

ARTICLE 4. PATENT PROSECUTION, MAINTENANCE AND INFRINGEMENT

Section 4.1 Prosecution and Maintenance.

4.1.1 Company shall have the first right to file, prosecute and maintain all Patent Rights specified under Licensed Patents, in each case at Company's sole expense using outside counsel reasonably acceptable to Amgen. Company shall use Commercially Reasonable Efforts to prepare, file, prosecute, defend and maintain all such Patent Rights; *provided* that Company does not represent or warrant that any patent will issue or be granted based on patent applications contained in the Licensed Patents. Amgen shall reasonably cooperate with Company's requests for data, affidavits, and other information and assistance to support prosecution and maintenance of such Patent Rights; *provided* that Company shall reimburse Amgen for its reasonable documented out-of-pocket expenses with respect to such cooperation. Company shall, at least [*] prior to submission or within [*] of receipt, forward to Amgen copies of any significant office actions, communications, and correspondence relating to the Licensed Patents. Amgen shall have the right to comment on and to discuss such prosecution and maintenance activities with Company, and Company shall consider the same in good faith.

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Section 4.2 Amgen Step-In Right. Notwithstanding the foregoing, if Company declines to file, prosecute or maintain any Patent Rights described in Section 4.1.1, elects to allow any Patent Rights described in Section 4.1.1 to lapse in any country, or elects to abandon any such Patent Rights (in each case solely to the extent contained in the Licensed Patents) before all appeals within the respective patent office have been exhausted (each, an **"Abandoned Patent Right"**), then:

(a) Company shall provide Amgen with reasonable notice of such decision so as to permit Amgen to decide whether to file, prosecute or maintain such Abandoned Patent Rights and to take any necessary action (which notice shall, in any event, be given no later than [*] prior to the next deadline for any action that may be taken with respect to such Abandoned Patent Right with the U.S. Patent & Trademark Office or any foreign patent office).

(b) Amgen, at Amgen's expense, may assume control of the filing, prosecution and/or maintenance of such Abandoned Patent Rights. The continued filing, prosecution or maintenance of such Abandoned Patent Rights shall be at Amgen's sole discretion.

(c) Amgen shall have the right to transfer the responsibility for such filing, prosecution and maintenance of such Abandoned Patent Rights to patent counsel (outside or internal) selected by Amgen.

(d) Company shall, at Amgen's reasonable request and expense, assist and cooperate in the filing, prosecution and maintenance of such Abandoned Patent Rights.

(e) In the event a patent issues with respect to any such Abandoned Patent Rights, Amgen shall provide reasonable notice to Company thereof and such Abandoned Patent Right shall be excluded from the license granted by Amgen to Company under Section 2.1 (Grant), unless Company (i) reimburses Amgen for its internal and external costs and expenses related to the prosecution and maintenance of such Abandoned Patent Right within [*] of issuance of any such patent and (ii) assumes, in writing, the responsibility for the continued prosecution and maintenance of such Patent Rights in accordance with the provisions of Section 4.1 (Prosecution and Maintenance).

Section 4.3 Enforcement.

4.3.1 Company Enforcement. Each Party shall notify the other promptly in writing when any Infringement by a Third Party is uncovered or reasonably suspected. Company shall have the first right to enforce any patent within the Licensed Patents against any Infringement or alleged Infringement thereof, and in each case shall at all times keep Amgen informed as to the status thereof. Company may, at its own expense, institute suit against any such infringer or alleged infringer and control, defend and settle such suit in a manner consistent with the terms and provisions hereof, and recover any damages, awards or settlements resulting therefrom, subject to Section 4.5 (Recovery). Amgen shall reasonably cooperate in any such litigation at

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Company's expense; where necessary, Amgen shall join in, or be named as a necessary party to, such litigation. Company shall not enter into any settlement of any claim described in this Section 4.3.1 (Company Enforcement) that admits to the invalidity or unenforceability of the Licensed Patents, incurs any financial liability on the part of Amgen, requires an admission of liability, wrongdoing or fault on the part of Amgen, without Amgen's prior written consent, in each case, such consent not to be unreasonably withheld.

4.3.2 Amgen Enforcement. If Company elects not to take good faith steps to enforce any patent within the Licensed Patents described in Section 4.3.1 (Company Enforcement) with respect to an Infringement (or otherwise take good faith steps to resolve such Infringement) in a particular country within [*] of receiving notice that an Infringement exists in such country (provided the foregoing shall not limit Amgen's right to pursue equitable relief at any time in any court of competent jurisdiction in order to protect its rights in the Licensed Patents), then it shall so notify Amgen in writing, and upon receiving such notice, then Amgen may, in its sole judgment and at its own expense, take steps to enforce any such patent, including instituting suit against any such infringer or alleged infringer, and control, defend and settle such suit in a manner consistent with the terms and provisions hereof, and recover any damages, awards or settlements resulting therefrom, subject to Section 4.5 (Recovery). Company shall reasonably cooperate in any such litigation at Amgen's expense; where necessary, Company shall join in, or be named as a necessary party to, such litigation. Amgen shall not enter into any settlement of any claim described in this Section 4.3.2 that admits to the invalidity or unenforceability of the Licensed Patents, incurs any financial liability on the part of Company or requires an admission of liability, wrongdoing or fault on the part of Company without Company's prior written consent, in each case, such consent not to be unreasonably withheld.

4.3.3 Progress Reports; Participation. The Party initiating or defending any enforcement action described in this Section 4.3 (Enforcement) (the **"Enforcing Party"**) shall keep the other Party reasonably informed of the progress of any such enforcement action, and such other Party shall have the individual right to participate with counsel of its own choice at its own expense. The selection of such counsel will be subject to the Enforcing Party's approval (which shall not be unreasonably withheld).

Section 4.4 Defense of Third Party Claims. If either (a) any Product Exploited by or under authority of Company becomes the subject of a Third Party's claim or assertion of Infringement of a patent relating to the manufacture, use, sale, offer for sale or importation of such Product in the Field in the Territory, or (b) a declaratory judgment action is brought naming either Party as a defendant and alleging invalidity or unenforceability of any of the Licensed Patents, the Party first having notice of the claim or assertion shall promptly notify the other Party, and the Parties shall promptly confer to consider the claim or assertion and the appropriate course of action. Unless the Parties otherwise agree in writing, each Party shall have the right to defend itself against a suit that names it as a defendant (the **"Defending Party"**). Neither Party shall enter into any settlement of any claim described in this Section 4.4 that admits to the invalidity or unenforceability of the Licensed Patents, incurs any financial liability on the part of the other Party, or requires an admission of liability, wrongdoing or fault on the part of the other Party, without such other Party's prior written consent, in each case, such consent not to be unreasonably withheld. In any event, the other Party shall reasonably assist the Defending Party and cooperate in any such litigation at the Defending Party's request and expense.

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Section 4.5 Recovery. Except as otherwise provided, the costs and expenses of the Party bringing suit under Section 4.3 (Enforcement) shall be borne by such Party, and any damages, settlements or other monetary awards recovered shall be shared as follows: (i) the amount of such recovery actually received by the Party controlling such action shall first be applied to the out-of-pocket costs of each Party in connection with such action; and then (ii) the remainder of the recovery shall be shared between the Parties as follows:

(a) If Company is the Enforcing Party, as if such recovery were Net Sales under this Agreement and Company shall pay to Amgen a portion of such Net Sales equal to the royalties calculated and payable with respect to the applicable Product under Section 3.4 (Royalties); and

(b) If Amgen is the Enforcing Party, [*] to Amgen, and [*] to Company.

Section 4.6 Patent Term Extensions and Filings for Regulatory Exclusivity Periods. Company shall advise Amgen in advance when it is considering any patent term extension or supplementary protection certificates or their equivalents for the Licensed Patents. With respect to any patent listings required for any Regulatory Exclusivity for Products in the Territory, the Parties shall mutually agree on which Licensed Patents to list.

Section 4.7 Patent Marking. Company shall mark, and shall cause all other Selling Parties to mark, Products with all Licensed Patents in accordance with applicable Law, which marking obligation shall continue for as long as (and only for as long as) required under applicable Law.

ARTICLE 5. OBLIGATIONS OF THE PARTIES

Section 5.1 Responsibility. Following the Closing Date and at all times during the Term (except as expressly stated otherwise herein), Company shall be responsible for, and shall bear all costs associated with, the research, development and commercialization of the Product(s) in the Territory, including regulatory, pharmacovigilance, manufacturing, distribution, marketing and sales activities. Subject to Company's obligations hereunder, all decisions concerning the development, marketing and sales of Product(s) in the Territory, including the clinical and regulatory strategy, design, sale, price and promotion of Product(s) covered under this Agreement, shall be within the sole discretion of Company.

Section 5.2 Diligence. Company shall (directly and/or through one or more Affiliates and/or Sublicensees or subcontractors) use Commercially Reasonable Efforts to develop and commercialize the Products in the Territory, [*]. The foregoing shall include use of Commercially Reasonable Efforts (directly and/or through one or more Affiliates and/or Sublicensees) with respect to [*]. In addition to the obligations of Company to use Commercially Reasonably Efforts, if Company, its Affiliates and/or their respective Sublicensees have not [*], Company shall promptly (but in no event later than [*] after each such applicable date) notify Amgen in writing of such failure to achieve such event (a **"Specified Diligence Failure"**) in a timely manner (the **"Diligence Notice"**); *provided* that, if Company either (A) fails to timely [*] despite its good faith efforts to do so or (B) has a Specified Diligence Failure

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as a result of [*] as required under [*], then the deadline described above shall be equitably extended to account for [*] to comply therewith (provided, in the case of a failure under clause (A), such equitable extension shall [*]). Company will notify Amgen if such an equitable extension is necessary, and will provide Amgen with a good faith, non-binding estimate of the expected duration of such extension. Notwithstanding anything to the contrary, Amgen shall have the right to terminate this Agreement for a Specified Diligence Failure by providing [*] written notice to Company, *provided* such Specific Diligence Failure is not cured during such notice period. Company shall notify Amgen immediately upon obtaining Marketing Approval of each Product in each country.

Section 5.3 Reports. On January 15 and July 15 of each year, Company shall submit to Amgen a report summarizing in reasonable detail, on a Product-by-Product basis, activities related to the Exploitation of Products that Company or any of its Affiliates has performed, or caused to be performed, during the preceding six (6)-month period, and future activities related to the Exploitation of Products it then-currently expects to initiate during the following six (6)-month period.

Section 5.4 Intentionally omitted.

Section 5.5 Pre-Existing Agreements. Promptly after the Closing Date, Amgen shall assign the Pre-Existing Agreements to Company, to the extent it has the right under such agreement(s) to do so (and will use commercially reasonable efforts to obtain any required consents). Until the effective date of such assignment or sublicense, as applicable, (a) Company agrees to perform, or assist Amgen in performing, Amgen's obligations under such agreement, and (b) Amgen agrees to use reasonable efforts to provide Company with any rights Amgen receives under such agreement and sublicense, as applicable.

Section 5.6 Company Location. Within sixty (60) days following the Closing Date, Company, Pinta Biosciences, Inc. or Santa Maria Biosciences, Inc. (either alone or together) shall establish facilities in or around Thousand Oaks, California (the **"Thousand Oaks Facilities"**). At least one of Company, Pinta Biosciences, Inc., or Santa Maria Biosciences, Inc. shall be obligated to maintain such Thousand Oaks Facilities until the earliest of (a) two (2) years following the date of such establishment, (b) the end of the Term or (c) a Sale Transaction of Company. Promptly after the Closing Date, Amgen and Company shall work together to mutually identify appropriate personnel candidates to develop and commercialize the Products in the Territory. Company shall use commercially reasonable efforts to hire and retain such candidates.

ARTICLE 6. INTENTIONALLY OMITTED.

ARTICLE 7. REPRESENTATIONS AND COVENANTS

Section 7.1 Mutual Warranties. Each of Amgen and Company represents and warrants that:

(a) it is duly organized and validly existing under the Law of the jurisdiction of its incorporation, and has full corporate power and authority to enter into this Agreement and to carry out the provisions hereof;

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(b) it is duly authorized to execute and deliver this Agreement and to perform its obligations hereunder, and the individual executing this Agreement on its behalf has been duly authorized to do so by all requisite corporate action; and

(c) this Agreement is legally binding upon it and enforceable in accordance with its terms. The execution, delivery and performance of this Agreement by it does not conflict with any agreement, instrument or understanding, oral or written, to which it is a party or by which it may be bound, nor violate any material applicable Law.

Section 7.2 Additional Amgen Warranties. Amgen warrants to Company that:

(a) As of the Signing Date, Amgen Controls the Licensed Patents and the Licensed Know-How listed on the Licensed Know-How Schedule, and is entitled to grant the licenses specified herein. Amgen has not caused any Patent Right included in the Licensed Patents to be subject to any liens or encumbrances and Amgen has not granted to any Third Party any rights or licenses under such Patent Rights or Licensed Know-How that would conflict with the licenses granted to Company hereunder. None of the Licensed Patents are in-licensed by Amgen;

(b) As of the Signing Date, Amgen has no knowledge of any claim or litigation that has been brought or threatened in writing by any Third Party alleging that (i) the Licensed Patents are invalid or unenforceable or (ii) the manufacture, sale, offer for sale or importation of the Products in the Field in the Territory infringes or misappropriates any patents or other intellectual property rights of any Third Party;

(c) As of the Signing Date, no patent application or registration within the Licensed Patents is the subject of any pending interference, opposition, cancellation or patent protest pursuant to 37 C.F.R. § 1.291;

(d) Amgen has made available to Company true and correct copies of the following: (i) all material Regulatory Filings for the Territory; (ii) all material correspondence with Governmental Authorities with respect to such Regulatory Filings; (iii) all minutes of any material meetings, telephone conferences or discussions with Governmental Authorities with respect to such Regulatory Filings; and (iv) all final clinical trial reports, in each case with respect to the Products and to the extent in existence as of the Signing Date;

(e) Amgen is the owner of each such Regulatory Filing in the Field in the Territory;

(f) Intentionally omitted;

(g) As of the Signing Date, the copy each Pre-Existing Agreement disclosed to Company prior to the Signing Date is, but for the redactions contained therein, a true and complete copy. Amgen further represents and warrants that Company will not be bound by any provision that is redacted from such copies of any Pre-Existing Agreement; and

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(h) As of the Signing Date, Amgen has no knowledge that the manufacture of Products using the Amgen Cell Line provided under this Agreement would infringe any patents of any Third Party in a manner that would reasonably be expected to have a material adverse effect on Company's ability to Commercialize the Products on or after January 1, 2019.

Section 7.3 Disclaimer. EXCEPT AS OTHERWISE EXPRESSLY SET FORTH IN THIS ARTICLE 7 (REPRESENTATIONS), NEITHER PARTY MAKES ANY REPRESENTATIONS OR EXTENDS ANY WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY, QUALITY, FITNESS FOR A PARTICULAR PURPOSE, NONINFRINGEMENT, OR VALIDITY OF PATENT CLAIMS. NOTHING IN THIS AGREEMENT SHALL BE CONSTRUED AS A REPRESENTATION MADE OR WARRANTY GIVEN BY EITHER PARTY THAT EITHER PARTY WILL BE SUCCESSFUL IN OBTAINING ANY PATENT RIGHTS, OR THAT ANY PATENTS WILL ISSUE BASED ON A PENDING APPLICATION. WITHOUT LIMITING THE RESPECTIVE RIGHTS AND OBLIGATIONS OF THE PARTIES EXPRESSLY SET FORTH HEREIN, EACH PARTY SPECIFICALLY DISCLAIMS ANY GUARANTEE THAT THE PRODUCTS WILL BE SUCCESSFUL, IN WHOLE OR IN PART.

Section 7.4 Company Covenants. Company covenants to Amgen that:

(a) it will conduct, and will cause its Affiliates and contractors to conduct, all preclinical and clinical studies for Products and manufacturing of Products, in accordance with (i) all U.S. Laws and the Laws of the country in which such clinical studies are conducted, (ii) the known or published standards of the FDA and the Regulatory Authority in such country, and (iii) the scientific standards applicable to the conduct of such studies and activities in the United States and in such country including current good laboratory practice, current good clinical practice and current good manufacturing practice. Neither Company, nor any officer, employee or agent of Company, will make an untrue statement of a material fact to any Regulatory Authority with respect to Products (whether in any submission to such Regulatory Authority or otherwise), and none of the foregoing will knowingly fail to disclose a material fact required to be disclosed to any Regulatory Authority with respect to Products;

(b) it will, and will cause its Affiliates and contractors to, comply with all Law with respect to the commercialization of Products;

(c) it will not knowingly employ any personnel or knowingly use a contractor or consultant that has been debarred by the FDA (or subject to a similar sanction of any other Regulatory Authority), or that is subject of an FDA debarment investigation or proceeding (or similar proceeding of any other Regulatory Authority); and

(d) it shall comply with all (i) U.S. Laws prohibiting the re-export, directly or indirectly, of certain controlled U.S.-origin items without a license to parties located in certain countries or appearing on certain U.S. Government lists of restricted parties; (ii) U.S. Laws prohibiting participation in non-U.S. boycotts that the United States does not support; and (iii) U.S. Laws prohibiting the sale of products to parties from any country subject to U.S. economic sanctions or who are identified on related U.S. Government lists of restricted parties.

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ARTICLE 8. INDEMNIFICATION

Section 8.1 Indemnity.

8.1.1 By Amgen. Amgen agrees to defend Company and its (and its Affiliates') directors, officers, employees and agents (the **"Company Indemnified Parties"**) at Amgen's cost and expense, and will indemnify and hold Company and the other Company Indemnified Parties harmless from and against any claims, losses, costs, damages, fees or expenses (including legal fees and expenses) (collectively, **"Losses"**) to the extent resulting from any Third Party claim (including product liability claims) arising out of or otherwise relating to (a) the gross negligence or willful misconduct of Amgen, or (b) the material breach of this Agreement or the representations and warranties made hereunder by Amgen; except, in each case, to the extent such Losses result from clause (a), (b), or (c) of Section 8.1.2 (By Company). In the event of any such claim against the Company Indemnified Parties by a Third Party, the foregoing indemnity obligations shall be conditioned upon (x) Company promptly notifying Amgen in writing of the claim, (y) Company granting Amgen sole management and control, at Amgen's sole expense, of the defense of the claim and/or its settlement (*provided* that Amgen shall not settle any such claim without the prior written consent of Company if such settlement does not include a complete release from liability or if such settlement would involve undertaking an obligation (including the payment of money by a Company Indemnified Party), would bind or impair a Company Indemnified Party, or includes any admission of wrongdoing or that any intellectual property or proprietary right of Company is invalid or unenforceable), and (z) at Amgen's expense, the Company Indemnified Parties cooperating with Amgen; *provided* that in the case of (x) and (z) any failure or delay in such notice or cooperation shall not excuse any obligations of Amgen except to the extent Amgen is actually prejudiced thereby. The Company Indemnified Parties may, at their option and expense, be represented in any such action or proceeding by counsel of their own choosing.

8.1.2 By Company. Company agrees to defend Amgen and its (and its Affiliates') directors, officers, employees and agents (the **"Amgen Indemnified Parties"**) at Company's cost and expense, and will indemnify and hold Amgen and the other Amgen Indemnified Parties harmless from and against any Losses resulting from any Third Party claim (including product liability claims) to the extent arising out of or otherwise relating to (a) the gross negligence or willful misconduct of Company, its Affiliates, or their respective Sublicensees, (b) the material breach of this Agreement or the representations, warranties and covenants made hereunder by Company, or (c) the Exploitation of any Product by or on behalf of Company, its Affiliates, or their respective Sublicensees (including from product liability and intellectual property infringement claims); except, in each case, to the extent such Losses result from clause (a) or (b) of Section 8.1.1 (By Amgen). In the event of any such claim against the Amgen Indemnified Parties by a Third Party, the foregoing indemnity obligations shall be conditioned upon (x) Amgen promptly notifying Company in writing of the claim, (y) Amgen granting Company sole management and control, at Company's sole expense, of the defense of the claim and/or its settlement (*provided* that Company shall not settle any such claim without the prior written consent of Amgen if such settlement does not include a complete release from liability or if such settlement would involve undertaking an obligation (including the payment of money by an Amgen Indemnified Party), would bind or impair an Amgen Indemnified Party, or includes any

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admission of wrongdoing or that any intellectual property or proprietary right of Amgen is invalid or unenforceable) and (z) at Company's expense, the Amgen Indemnified Parties cooperating with Company; *provided* that in the case of (x) and (z) any failure or delay in such notice or cooperation shall not excuse any obligations of Company except to the extent Company is actually prejudiced thereby. The Amgen Indemnified Parties may, at their option and expense, be represented in any such action or proceeding by counsel of their own choosing.

Section 8.2 LIMITATION OF DAMAGES. IN NO EVENT SHALL EITHER PARTY BE LIABLE HEREUNDER TO THE OTHER PARTY FOR ANY PUNITIVE, RELIANCE, INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING LOST REVENUE, LOST PROFITS, OR LOST SAVINGS) HOWEVER CAUSED AND UNDER ANY THEORY, EVEN IF IT HAS NOTICE OF THE POSSIBILITY OF SUCH DAMAGES. THE LIMITATIONS SET FORTH IN THIS SECTION 8.2 (LIMITATION OF DAMAGES) SHALL NOT APPLY WITH RESPECT TO (A) ANY BREACH OF ARTICLE 9 (CONFIDENTIALITY) OR (B) THE INTENTIONAL MISCONDUCT OF A PARTY. NOTHING IN THIS SECTION 8.2 (LIMITATION OF DAMAGES) IS INTENDED TO LIMIT OR RESTRICT THE INDEMNIFICATION RIGHTS OR OBLIGATIONS OF A PARTY UNDER THIS ARTICLE 8 (INDEMNIFICATION) WITH RESPECT TO ANY DAMAGES PAID BY THE OTHER PARTY TO A THIRD PARTY IN CONNECTION WITH A THIRD-PARTY CLAIM.

Section 8.3 Insurance. At least [*] prior to [*], Company shall at its own expense procure and maintain during the Term (and for [*] thereafter) [*] insurance coverage adequate to cover its obligations hereunder and which is/are consistent with normal business practices of prudent pharmaceutical companies. Additionally, at least [*] prior to [*], Company shall at its own expense procure and maintain during the Term (and for [*] thereafter) [*] insurance coverage adequate to cover its obligations hereunder and which is consistent with normal business practices of prudent pharmaceutical companies. Each insurance policy required by and procured by Company under this Section 8.3 (Insurance) shall [*]. Such insurance shall not be construed to create a limit of Company's liability with respect to its indemnification obligations under this Article 8 (Indemnification). Company shall provide Amgen with a certificate of insurance or other evidence of such insurance, upon request. Company shall provide Amgen with written notice at least [*] prior to the cancellation, non-renewal or a material change of or in such insurance which materially adversely affects the rights of Amgen hereunder, and [*] prior written notice of cancellation for non-payment of premiums. Company's insurance hereunder shall be primary with respect to the obligations for which Company is liable hereunder.

ARTICLE 9. CONFIDENTIALITY

Section 9.1 Confidential Information.

9.1.1 Confidential Information. Each Party (**"Disclosing Party"**) may disclose to the other Party (**"Receiving Party"**), and Receiving Party may acquire during the course and conduct of activities under this Agreement, certain proprietary or confidential information of Disclosing Party in connection with this Agreement. The term **"Confidential Information"** means (a) all Licensed Know-How, (b) all Licensed Materials, and (c) all ideas and information

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of any kind, whether in written, oral, graphical, machine-readable or other form, whether or not marked as confidential or proprietary, which are transferred, disclosed or made available by Disclosing Party or at the request of Receiving Party. During the Term, Amgen shall keep completely confidential all Licensed Know-How and Licensed Materials to the extent disclosure of such Confidential Information would negatively impact in any material way the Exploitation of the Products in the Territory by Company or its Affiliates or Sublicensees. For clarity, any modifications, improvements, enhancements, derivatives, or extracts of or related to the Licensed Know-How and Licensed Materials conceived or reduced to practice by or on behalf of Company, its Affiliates, or Sublicensees shall be considered Company's Confidential Information.

9.1.2 Restrictions. During the Term and for [*] thereafter, Receiving Party shall keep completely confidential all Disclosing Party's Confidential Information. Receiving Party shall not use Disclosing Party's Confidential Information except to the extent necessary to perform its obligations and exercise its rights under this Agreement. Receiving Party has the right to disclose Disclosing Party's Confidential Information without Disclosing Party's prior written consent, to the extent and only to the extent reasonably necessary, to Receiving Party's Affiliates and their employees, subcontractors, consultants or agents who have a need to know such Confidential Information in order to perform its obligations and exercise its rights under this Agreement and who are required to comply with the restrictions on use and disclosure in this Section 9.1.2 (Restrictions). Receiving Party shall use diligent efforts to cause those entities and persons to comply with the restrictions on use and disclosure in this Section 9.1.2 (Restrictions). Receiving Party assumes responsibility for those entities and persons maintaining Disclosing Party's Confidential Information in confidence and using same only for the purposes described herein.

9.1.3 Exceptions. Receiving Party's obligation of nondisclosure and the limitations upon the right to use the Disclosing Party's Confidential Information shall not apply to the extent that Receiving Party can demonstrate that the Disclosing Party's Confidential Information: (a) was known to Receiving Party or any of its Affiliates prior to the time of disclosure, as evidenced by contemporaneous written records; (b) is or becomes public knowledge through no fault or omission of Receiving Party or any of its Affiliates; (c) is obtained by Receiving Party or any of its Affiliates from a Third Party under no obligation of confidentiality to Disclosing Party; or (d) has been independently developed by employees, subcontractors, consultants or agents of Receiving Party or any of its Affiliates without the aid, application or use of Disclosing Party's Confidential Information, as evidenced by contemporaneous written records.

9.1.4 Permitted Disclosures. Receiving Party may disclose Disclosing Party's Confidential Information to the extent (and only to the extent) such disclosure is reasonably necessary in the following instances:

(a) in order to comply with applicable law (including any securities law or regulation or the rules of a securities exchange) or with a legal or administrative proceeding;

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(b) in connection with prosecuting or defending litigation, Marketing Approvals and other regulatory filings and communications, and filing, prosecuting and enforcing Patents in connection with Receiving Party's rights and obligations pursuant to this Agreement; and

(c) in connection with exercising its rights hereunder, to its Affiliates; potential and future collaborators (including Sublicensees where Company is the Receiving Party); and permitted and potential acquirers or assignees; potential investment bankers, investors and lenders;

provided that (1) with respect to the foregoing clause (a) or (b), where reasonably possible, Receiving Party shall notify Disclosing Party of Receiving Party's intent to make any disclosure pursuant thereto sufficiently prior to making such disclosure so as to allow Disclosing Party adequate time to take whatever action it may deem appropriate to protect the confidentiality of the information to be disclosed, and (2) with respect to the foregoing clause (c), each of those named people and entities are required to comply with the restrictions on use and disclosure in Section 9.1.2 (Restrictions) (other than investment bankers, investors and lenders, which must be bound prior to disclosure by commercially reasonable obligations of confidentiality).

Section 9.2 Terms of this Agreement; Publicity.

9.2.1 Restrictions. The Parties agree that the terms of this Agreement shall be treated as Confidential Information of both Parties, and thus may be disclosed only as permitted by Section 9.1.4 (Permitted Disclosures). Except as required by law and except for the press release attached hereto as the Press Release Schedule to be issued on or after the Closing Date, each Party agrees not to issue any press release or public statement disclosing information relating to this Agreement or the Products in the Territory or the transactions contemplated hereby or the terms hereof without the prior written consent of the other Party not to be unreasonably withheld (or as such consent may be obtained in accordance with Section 9.2.2 (Review)).

9.2.2 Review. In the event either Party (the **"Issuing Party"**) desires to issue a press release or other public statement disclosing information relating to this Agreement or the transactions contemplated hereby or the terms hereof, the Issuing Party shall provide the other Party (the **"Reviewing Party"**) with a copy of the proposed press release or public statement (the **"Release"**). The Issuing Party shall specify with each such Release, taking into account the urgency of the matter being disclosed, a reasonable period of time within which the Receiving Party may provide any comments on such Release (but in no event less than [*] business days) and if the Receiving Party fails to provide any comments during the response period called for by the Issuing Party, the Reviewing Party shall be deemed to have consented to the issuance of such Release. If the Receiving Party provides any comments, the Parties shall consult on such Release and work in good faith to prepare a mutually acceptable Release. Either Party may subsequently publicly disclose any information previously contained in any Release so consented to. For the avoidance of doubt, notwithstanding anything to the contrary, Company, in its sole discretion, may (a) subject to the terms of Section 9.1 (Confidential Information), disclose information relating to Company's, its Affiliates', and Sublicensees' activities in connection with the subject matter hereunder, including information relating to research and any clinical trial conducted by Company (including in marketing or publicity materials) and any health or safety

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matter related to a Product and (b) disclose information relating to this Agreement or the transactions contemplated hereby to current and potential investors in and potential acquirers and Sublicensees of Company who are bound prior to disclosure by commercially reasonable obligations of confidentiality.

Section 9.3 Relationship to the Confidentiality Agreement. All "Confidential Information" disclosed or received by or on behalf of a Party under that certain Confidential Disclosure Agreement between Amgen and Kleiner Perkins Caufield & Byers, dated October 17, 2011, shall be deemed "Confidential Information" hereunder and shall be subject to the terms and conditions of this Agreement.

Section 9.4 Publications.

9.4.1 Right to Publish. Subject to the provisions of Sections 9.1 (Confidential Information), 9.2 (Terms of this Agreement; Publicity) and 9.4.2 (Review), both Parties shall have the right to publish with respect to Products in publications based in the Territory, and to make scientific presentations on Products in the Territory (*provided* that prior to any such publication or presentation by Amgen with respect to a Product in the Territory, Amgen shall obtain Company's prior written consent). Neither Party shall publish the [*] or information concerning the [*] without the prior consent of the other Party.

9.4.2 Review. Except as required by Law or court order, for any proposed publication or presentation regarding a Product in the Territory, the Party desiring to make such publication: (a) shall transmit a copy of the proposed publication for review and comment to the other Party (and any applicable licensee) at least [*] prior to the submission of such publication to a Third Party;; (b) upon request of the other Party (or applicable licensee) shall remove all Confidential Information of the other Party (or applicable licensee); and (c) shall consider all reasonable comments made by the other Party (or applicable licensee).

ARTICLE 10. TERM AND TERMINATION

Section 10.1 Term. The term of this Agreement (the **"Term"**) shall commence on the Signing Date, and unless terminated earlier as provided in this Article 10 (Term and Termination), shall continue in full force and effect until expiration of the last-to-expire Royalty Term for any Product in the Territory. Upon expiration of this Agreement, the licenses granted to Company by Amgen under this Agreement to Exploit Products shall be fully paid-up, royalty-free, irrevocable and non-exclusive.

Section 10.2 Termination by Amgen.

10.2.1 Breach.

(a) Subject to Section 10.2.1(b), Amgen shall have the right to terminate this Agreement in full upon delivery of written notice to Company in the event of any material breach by Company of any terms and conditions of this Agreement; *provided* that such termination shall not be effective if such breach has been cured within [*] after written notice thereof is given by Amgen to Company specifying the nature of the alleged breach.

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(b) Notwithstanding the foregoing, in the event of a good faith dispute between the Parties as to whether Company has materially breached any terms or conditions of this Agreement (a **"Dispute"**), then, except [*], (i) the Parties shall resolve the Dispute pursuant to Section 11.4 (Governing Law; Jurisdiction) (the period until the resolution of such Dispute being the **"Dispute Period"**); (ii) each Party will continue to perform its obligations under this Agreement during the Dispute Period and (iii) if the relevant judicial finder of fact (**"Finder of Fact"**) determines that Company is in material breach as asserted by Amgen (a **"Breach"**), then, following such adjudication by the Finder of Fact and in lieu of any such termination by Amgen, Company shall have the right to cure (A) any payment breach by payment in full of any finally determined monetary award and (B) any other breach that [*]. For avoidance of doubt, this Section 10.2.1 shall not abrogate Amgen's right to obtain injunctive or equitable relief at any time from a court of competent jurisdiction and/or attorneys' fees in connection with any relief so granted.

10.2.2 Termination for IP Challenge. To the extent allowed by Law, Amgen shall have the right, upon written notice to Company, to terminate in full (a) this Agreement, in the event that Company or any of its Affiliates directly challenges in a legal or administrative proceeding the patentability, enforceability or validity of any Licensed Patents or Framework Patents, or (b) any Sublicensee's sublicense, in the event that such Sublicensee directly challenges in a legal or administrative proceeding the patentability, enforceability or validity of any Licensed Patents; *provided* that Amgen shall not have the right to terminate any sublicense under Section 10.2.2 (b) (Termination for IP Challenge) for any such challenge by any Sublicensee if such challenge is dismissed within [*] of Amgen's notice to Company under this Section 10.2.2 (Termination for IP Challenge) and not thereafter continued.

Section 10.3 Termination by Company.

10.3.1 Breach. Company shall have the right to terminate this Agreement in full upon delivery of written notice to Amgen in the event of any material breach by Amgen of any terms and conditions of this Agreement; *provided* that such termination shall not be effective if such breach has been cured within [*] after written notice thereof is given by Company to Amgen specifying the nature of the alleged breach.

10.3.2 Discretionary Termination. Company shall have the right to terminate this Agreement in full, or on a Product-by-Product basis, [*] after delivery of written notice to Amgen if the Board of Directors of Company concludes due to scientific, technical, regulatory or commercial reasons, including (a) safety or efficacy concerns, including adverse events of a Product, (b) concerns relating to the present or future marketability or profitability of a Product, (c) reasons related to patent coverage or (d) existing and anticipated competition, renders the Exploitation of a Product no longer commercially practicable for Company.

Section 10.4 Termination Upon Bankruptcy. Either Party may terminate this Agreement if, at any time, the other Party shall (a) file in any court or agency pursuant to any statute or regulation of any state, country or jurisdiction, a petition in bankruptcy or insolvency or for reorganization or for an arrangement or for the appointment of a receiver or trustee of that Party or of its assets, (b) propose a written agreement of composition or extension of its debts, (c) be served with an

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involuntary petition against it, filed in any insolvency proceeding, and such petition has not been dismissed within [*] after the filing thereof, (d) propose or be a party to any dissolution or liquidation, (e) make an assignment for the benefit of its creditors or (f) admit in writing its inability generally to meet its obligations as they fall due in the general course.

Section 10.5 Effects of Termination. Upon termination by either Party under Sections 10.2 (Termination by Amgen), 10.3 (Termination by Company) or 10.4 (Termination Upon Bankruptcy):

(a) Company shall responsibly wind-down, in accordance with accepted pharmaceutical industry norms and ethical practices, any on-going clinical studies for the Terminated Products for which it has responsibility hereunder in which patient dosing has commenced or, if reasonably practicable and requested by Amgen, Company, its Affiliates or its Sublicensees shall complete such trials. Company shall be responsible for any costs associated with such wind-down. Amgen shall pay all costs incurred by either Party to complete such studies should Amgen request that such studies be completed.

(b) A termination of this Agreement shall [*] with respect to the Terminated Products pursuant to Section [*]; *provided* that, with respect to [*], as of the effective date of termination and [*] consistent with the terms and conditions contained herein, with [*], or [*], Company may, to the extent it is legally permitted to do so, [*] and [*] and [*] and [*].

(c) All rights and licenses granted by Amgen to Company in Article 2 (License Grant) with respect to the Terminated Products shall terminate, and Company and its Affiliates shall cease all use of Licensed Know-How and Licensed Patents related to the Terminated Products and all Exploitation of the Terminated Products, except to the extent required under Section 10.5(a).

(d) Upon Amgen's request, all Marketing Approvals and other regulatory filings and communications relating to the Terminated Products owned (in whole or in part) or otherwise controlled by Company and its Affiliates and Sublicensees, and all other documents relating to or necessary to further Exploit any Terminated Products, as such items exist as of the effective date of such termination (including all related completed and ongoing clinical studies) shall be assigned to Amgen, and Company shall provide to Amgen one (1) copy of the foregoing and all documents contained in or referenced in any such items, together with the raw and summarized data for any clinical studies (and where reasonably available, electronic copies thereof). In the event of any failure to obtain assignment, Company hereby consents and grants to Amgen the right to access and reference (without any further action required on the part of Company, whose authorization to file this consent with any Regulatory Authority is hereby granted) any such item.

(e) Company hereby grants to Amgen and its Affiliates, and Amgen and its Affiliates shall automatically have, a [*] license, [*], under Know-How and Patent Rights that are Controlled by Company or any of its Affiliates and Sublicensees for Exploiting the Terminated Products and any improvement to any of the foregoing (such license effective only as of and after the effective date of such termination). The Patent Rights so licensed shall be subject to [*].

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(f) Upon Amgen's request, Company shall assign (or, if applicable, shall cause its Affiliates or Sublicensees to assign) to Amgen all of Company's (and such Affiliates' and Sublicensees') right, title and interest in and to any registered or unregistered trademarks or internet domain names worldwide that are specific to a Terminated Product (it being understood that the foregoing shall not include any trademarks or internet domain names that contain the corporate or business name(s) of Company).

(g) Company agrees (and shall cause its Affiliates and Sublicensees as a condition of the grant of the applicable Sublicense to so agree) to fully cooperate with Amgen and its designee(s) to facilitate a smooth, orderly and prompt transition of the Exploitation of Terminated Products in the Territory to Amgen and/or its designee(s). Upon request by Amgen, and at Amgen's expense, Company shall transfer to Amgen some or all quantities of Terminated Products in its possession. If Company is, at the time of such termination of this Agreement, party to any Third Party contracts with respect to a Terminated Product, then it shall provide Amgen notice and (to the extent permitted to do so) copies thereof Company shall assign to Amgen (and Amgen shall assume and perform) any such contracts requested by Amgen, to the extent it has the right under such contract(s) to do so (and shall use commercially reasonable efforts to obtain any required consents). In addition, Company shall, at Amgen's cost and expense, provide any cooperation reasonably requested by Amgen to ensure uninterrupted supply of Terminated Products. If Company manufactured any Terminated Product at the time of termination, then Company shall continue to provide for manufacturing of such Product for Amgen, at [*] of the fully-burdened manufacturing cost therefor (for clarity, such cost shall be paid by Amgen to Company), from the date of notice of such termination until the sooner to occur of (a) such time as Amgen is able, using commercially reasonable efforts to do so, to secure an acceptable alternative commercial manufacturing source from which sufficient quantities of Product may be procured and legally sold in the Territory and (b) [*] from the effective date of termination of this Agreement.

(h) For clarity, the terms and conditions of this Agreement shall continue in full force and effect with respect to any Product other than the Terminated Products, and the terms and conditions of the provisions listed as surviving pursuant to Section 10.6 (Survival) shall continue in full force and effect with respect to the Terminated Products.

Company shall duly execute and deliver, or caused to be duly executed and delivered, such instruments and shall do and cause to be done such activities and things, including the filings of such assignments, agreements, documents and instruments, as may be necessary under, or as Amgen may reasonably request in connection with, Amgen's rights under this Section 10.5 (Effects of Termination).

Section 10.6 Survival. In addition to the termination consequences set forth in Section 10.5 (Effects of Termination), the following provisions shall survive termination or expiration of this Agreement: Articles 1 (Definitions), 7 (Indemnification), 8 (Confidentiality), and 10 (Miscellaneous) and Sections 2.7 (Limited Exploitation Rights), 3.3 (Milestone Payments) (with respect to milestones reached prior to such expiration or termination), 3.4 (Royalties) (with respect to sales made before such expiration or termination), 3.6 (Method of Payment; Royalty Reporting\) through 3.10 (Taxes) (inclusive) (with respect to periods with sales of Products made

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before such expiration or termination), 4.3 (Enforcement) through 4.5 (Recovery) (with respect to any action initiated prior to such expiration or termination), 7.3 (Disclaimer), 10.5 (Effects of Termination) and this Section 10.6 (Survival). Termination or expiration of this Agreement shall not relieve the Parties of any liability or obligation which accrued hereunder prior to the effective date of such termination or expiration nor preclude either Party from pursuing all rights and remedies it may have hereunder or at law or in equity with respect to any breach of this Agreement nor prejudice either Party's right to obtain performance of any obligation. All other rights and obligations shall terminate upon expiration of this Agreement.

ARTICLE 11. MISCELLANEOUS

Section 11.1 Entire Agreement Amendment. This Agreement and all Schedules attached to this Agreement constitute the entire agreement between the Parties as to the subject matter hereof. All prior and contemporaneous negotiations, representations, warranties, agreements, statements, promises and understandings with respect to the subject matter of this Agreement are superseded hereby. Neither Party shall be bound by or charged with any written or oral agreements, representations, warranties, statements, promises or understandings not specifically set forth in this Agreement. No amendment, supplement or other modification to any provision of this Agreement shall be binding unless in writing and signed by both Parties.

Section 11.2 Section 365(n) of the Bankruptcy Code. All rights and licenses granted under or pursuant to any section of this Agreement are, and shall otherwise be deemed to be, for purposes of Section 365(n) of the U.S. Bankruptcy Code, licenses of rights to "intellectual property" as defined under Section 101(35A) of the U.S. Bankruptcy Code to the extent permitted thereunder. The Parties shall retain and may fully exercise all of their respective rights and elections under the U.S. Bankruptcy Code or any analogous provisions in any other country or jurisdiction. Upon the commencement of a bankruptcy proceeding by or against either Party, the Party that is not a party to such proceeding shall further be entitled to a complete duplicate of (or complete access to, as appropriate) any such intellectual property and all embodiments of such intellectual property, which, if not already in the non-subject Party's possession, shall be promptly delivered to it, unless the Party subject to the proceeding elects to continue, and continues, to perform all of its obligations under this Agreement.

Section 11.3 Independent Contractors. The relationship between Company and Amgen created by this Agreement is solely that of independent contractors. This Agreement does not create any agency, distributorship, employee-employer, partnership, joint venture or similar business relationship between the Parties. Neither Party is a legal representative of the other Party, and neither Party can assume or create any obligation, representation, warranty or guarantee, express or implied, on behalf of the other Party for any purpose whatsoever. Each Party shall use its own discretion and shall have complete and authoritative control over its employees and the details of performing its obligations under this Agreement.

Section 11.4 Governing Law; Jurisdiction. This Agreement and its effect are subject to and shall be construed and enforced in accordance with the law of [*], without regard to its conflicts or choice of law rules or principles, except as to any issue which depends upon the validity, scope or enforceability of any Licensed Patent, which issue shall be determined in accordance

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with the laws of the country in which such patent was issued. Each of the Parties hereby irrevocably and unconditionally consents to submit to the exclusive jurisdiction of the courts of [*] for any matter arising out of or relating to this Agreement and the transactions contemplated hereby, and agrees not to commence any litigation relating thereto except in such courts. Each of the Parties hereby irrevocably and unconditionally waives any objection to the laying of venue of any matter arising out of this Agreement or the transactions contemplated hereby in the courts of [*] and hereby further irrevocably and unconditionally waives and agrees not to plead or claim in any such court that any such matter brought in any such court has been brought in an inconvenient forum. The Parties agree that a final judgment in any such matter shall be conclusive and may be enforced in other jurisdictions by suits on the judgment or in any other manner provided by law. Any proceeding brought by either Party under this Agreement shall be exclusively conducted in the English language.

Section 11.5 Notice. Except as otherwise expressly set forth herein, all notices or communication required or permitted to be given by either Party hereunder shall be deemed sufficiently given if mailed by registered mail or certified mail, return receipt requested, or sent by overnight courier, such as Federal Express, to the other Party at its respective address set forth below or to such other address as one Party shall give notice of to the other from time to time hereunder. Mailed notices shall be deemed to be received on the third (3rd) business day following the date of mailing. Notices sent by overnight courier shall be deemed received the following business day.

If to Company: Nina Biosciences, Inc.
c/o Kleiner Perkins Caufield & Byers
2750 Sand Hill Road
Menlo Park CA 94025
Attn: Isaac Ciechanover, MD

If to Amgen: Amgen Inc.
One Amgen Center Drive
Thousand Oaks, CA 91320
Attn: Corporate Secretary

Section 11.6 Compliance With Law; Severability. Nothing in this Agreement shall be construed to require the commission of any act contrary to Law. If any one or more provisions of this Agreement is held to be invalid, illegal or unenforceable, the affected provisions of this Agreement shall be curtailed and limited only to the extent necessary to bring it within the applicable legal requirements, and the validity, legality and enforceability of the remaining provisions of this Agreement shall not in any way be affected or impaired thereby.

Section 11.7 Non-Use of Names. Amgen shall not, and shall require its Affiliates not to, use the name, trademark, logo or physical likeness of Company or any of its officers, directors or employees, or any adaptation of any of them, in any advertising, promotional or sales literature, without such Company's prior written consent. Company shall not, and shall require its Affiliates not to, use the name, trademark, logo or physical likeness of Amgen or any of its officers, directors or employees, or any adaptation of any of them, in any advertising, promotional or sales literature, without Amgen's prior written consent.

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Section 11.8 Successors and Assigns. Neither this Agreement nor any of the rights or obligations created herein, except for the right to receive any remuneration hereunder, may be assigned by either Party, in whole or in part, without the prior written consent of the other Party, not to be unreasonably withheld or delayed except that either Party shall be free to assign this Agreement in connection with any merger, sale of such Party or sale of all or substantially all of the assets of the Party relating to this Agreement (a **"Sale Transaction"**), without the prior consent of the non-assigning Party; *provided* that, in the case of a Sale Transaction of Company, the assignee shall be required to assume all of Company's obligations hereunder. This Agreement shall bind and inure to the benefit of the successors and permitted assigns of the Parties hereto. Any assignment of this Agreement in contravention of this Section 11.8 (Successors and Assigns) shall be null and void.

Section 11.9 Sale Transaction or Amgen Acquisition. In the event of (x) a Sale Transaction, or (y) the acquisition by Amgen of all or substantially all of the business of a Third Party (together with any entities that were Affiliates of such Third Party immediately prior to such acquisition, an **"Amgen Acquiree"**), whether by merger, sale of stock, sale of assets or otherwise (an **"Amgen Acquisition"**), the intellectual property rights of the acquiring party in a Sale Transaction, if other than one of the Parties to this Agreement (together with any entities that were affiliates of such Third Party immediately prior to such Sale Transaction, a **"Third Party Acquirer"**), or the Amgen Acquiree, as applicable, shall not be included in the technology licensed hereunder or otherwise subject to this Agreement.

Section 11.10 Waivers. A Party's consent to or waiver, express or implied, of the other Party's breach of its obligations hereunder shall not be deemed to be or construed as a consent to or waiver of any other breach of the same or any other obligations of such breaching Party. A Party's failure to complain of any act, or failure to act, by the other Party, to declare the other Party in default, to insist upon the strict performance of any obligation or condition of this Agreement or to exercise any right or remedy consequent upon a breach thereof, no matter how long such failure continues, shall not constitute a waiver by such Party of its rights hereunder, of any such breach, or of any other obligation or condition. A Party's consent in any one instance shall not limit or waive the necessity to obtain such Party's consent in any future instance and in any event no consent or waiver shall be effective for any purpose hereunder unless such consent or waiver is in writing and signed by the Party granting such consent or waiver.

Section 11.11 No Third Party Beneficiaries. Except as expressly provided with respect to Amgen Indemnified Parties and Company Indemnified Parties in Article 8 (Indemnification) and Amgen's licensees, nothing in this Agreement shall be construed as giving any Person, other than the Parties hereto and their successors and permitted assigns, any right, remedy or claim under or in respect of this Agreement or any provision hereof

Section 11.12 Headings; Schedules. Article and Section headings used herein are for convenient reference only, and are not a part of this Agreement. All Schedules are incorporated herein by this reference.

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Section 11.13 Interpretation. Except where the context otherwise requires, wherever used, the singular shall include the plural and the plural the singular, the use of any gender shall be applicable to all genders and the word "or" is used in the inclusive sense (and/or). The term "including" as used herein shall mean including, without limiting the generality of any description preceding such term. All references to a "business day" or "business days" in this Agreement means any day other than a day which is a Saturday or Sunday or any day banks are authorized or required to be closed in the United States. The language in all parts of this Agreement shall be deemed to be the language mutually chosen by the Parties. The Parties and their counsel have cooperated in the drafting and preparation of this Agreement, and this Agreement therefore shall not be construed against any Party by virtue of its role as the drafter thereof.

Section 11.14 Counterparts. This Agreement may be executed in counterparts by a single Party, each of which when taken together shall constitute one and the same agreement, and may be executed through the use of facsimiles or electronically transmitted documents.

[Signature page follows]

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IN WITNESS WHEREOF, the Parties have executed this Agreement as of the date first set forth above.

NINA BIOSCIENCES, INC.	AMGEN INC.
By: /s/ Isaac Ciechanover	By: /s/ Jonathan Peacock
Name: Isaac Ciechanover	Name: Jonathan Peacock
Title: President	Title: Executive Vice President and Chief Finance Officer

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Schedule

Business Plan

[Schedule begins on following page.]

[*]
[60 pages omitted]

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Schedule
Licensed Know-How

[*]
[12 pages omitted]

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Schedule

Licensed Materials

[*]

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Schedule

Licensed Patents

[*]

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Schedule

Milestones and Royalties

Milestone Payments: The Milestone Events and Milestone Payments to be made pursuant to Section 3.3 of the Agreement are as follows:

Milestone Event	Payment
Development Milestones, payable on a Product-by-Product basis	
[*]	[*]
Commercial Milestones with respect to Products	
[*]	[*]

* Notwithstanding anything to the contrary, if, [*], then this Milestone Payment shall not be payable until [*].

1. Royalties: The royalty rates payable under Section 3.4 of the Agreement with respect to Net Sales of Product(s) are as follows:

   (i) [*] on the portion of annual Net Sales for Products less than [*];

   (ii) [*] on the portion of annual Net Sales for Products between [*] and [*], inclusive; and

   (iii) [*] on the portion of annual Net Sales for Products greater than [*].

   For the avoidance of doubt, if a Product is Covered by more than one Licensed Patent, the above royalty shall be paid only once.

2. Third Party Payments. In the event that Company or any of its Affiliates or Sublicensees obtains a license under Patent Rights of a Third Party in any country in the Territory that Company or its Affiliate or Sublicensee, on the advice of patent counsel, determines, in the absence of a license thereunder, would be considered to be Infringed by the development, manufacture, use, sale, offer for sale or import of a Product sold by Company (or its Affiliate or Sublicensee) in such country (in each case, a **"Necessary Third Party License"**), then Company may deduct [*] of the royalties actually paid to such Third Party under such Necessary Third Party License with respect to sales of such Product in such country from the royalty payments owed to Amgen pursuant to Section 2 of this Milestones and Royalties Schedule with respect to Net Sales of such Product in such country.

3. No Valid Claim. In the event that any Product is not Covered by at least one (1) Valid Claim of a Licensed Patent within the Territory, then the royalty rates set forth in Section 2(b) of this Milestones and Royalties Schedule shall be reduced by [*] for such Product.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

4. Maximum Deduction. In no event, however, shall a deduction, or deductions, in the royalty rate pursuant to Section 3 of this Milestones and Royalties Schedule and Section 4 of this Milestones and Royalties Schedule, reduce the royalty rate payable by Company on Net Sales of a given Product during a given calendar quarter pursuant to Section 2 of this Milestones and Royalties Schedule by more than [*] in the aggregate.

5. Mutual Convenience of the Parties. The royalty and other payment obligations set forth hereunder have been agreed to by the Parties for the purpose of reflecting and advancing their mutual convenience, including the ease of calculating and paying royalties and other amounts to Amgen. Company hereby stipulates to the fairness and reasonableness of such royalty and other payment obligations and covenants not to allege or assert, nor to allow any of its Affiliates or Sublicensees to allege or assert, nor further to cause or support any other Third Parties to allege or assert, that any such royalty or other payment obligations are unenforceable or illegal in any way.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Schedule

Pre-Existing Agreements

[*]

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Schedule

Permitted CMOs

[*]

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Schedule

Press Release

[Schedule begins on following page.]

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Amgen to License Assets to Atara Biotherapeutics, Kleiner Perkins Caufield & Byers' (KPCB) Newly Formed Drug Development Company

September x, 2012, Thousand Oaks, CA — Amgen (NASDAQ: AMGN) and KPCB today announced an agreement that licenses six Amgen assets to Atara Biotherapeutics, a newly formed drug development company financed by KPCB. The in-licensed assets from Amgen are in various stages of development, from preclinical to early clinical. These drugs will form the foundation of Atara's focus on developing innovative drug therapies for patients with cancer and chronic diseases, including nephrology and oncology. Financial terms of the transaction are not being disclosed.

Atara will have facilities in both the Bay Area and Thousand Oaks, Calif., where it can help broaden the biotechnology hub around Amgen. The Atara leadership team will be comprised of individuals having previous experience from both Amgen and KPCB. Amgen will have a minority equity interest in Atara, with rights to an observer seat on Atara's Board of Directors.

> "Amgen is excited to partner with KPCB, a preeminent venture capital firm, to foster a creative business model that will help advance molecules in Amgen's pipeline to treat serious illness," said Sean E. Harper, M.D., executive vice president of Research and Development at Amgen. "The creation of Atara Biotherapeutics also provides the opportunity to further foster biotechnology innovation in Amgen's headquarters' communities."
>
> "The model for Atara will enable us to build on Amgen's research to bring a promising group of therapeutics to patients with serious illnesses, enabling them to have a better quality of life," said Dr. Isaac Ciechanover, CEO Atara Biotherapeutics (former partner at KPCB).

About Kleiner Perkins

Since its founding in 1972, Kleiner Perkins Caufield & Byers has backed entrepreneurs in more than 500 ventures including AOL, Amazon.com, Citrix, Compaq, Electronic Arts, Google, Groupon, Intuit, Juniper Networks, Netscape, Sun, Symantec, Verisign, webMD and Zynga. This also includes lifesciences companies Genentech, Genomic Health, Idec and Onyx to name a few. KPCB portfolio companies employ more than 350,000 people worldwide. More than 150 of the firm's portfolio companies have gone public, and many other KPCB ventures have achieved success through mergers and acquisitions. KPCB focuses its global investments in three practice areas - digital, greentech and life sciences - and provides entrepreneurs with company-building expertise out of its offices in Silicon Valley, Beijing and Shanghai.

About Amgen

Amgen discovers, develops, manufactures and delivers innovative human therapeutics. A biotechnology pioneer since 1980, Amgen was one of the first companies to realize the new science's promise by bringing safe, effective medicines from lab to manufacturing plant to patient. Amgen therapeutics have changed the practice of medicine, helping millions of people around the world in the fight against cancer, kidney disease, rheumatoid arthritis, bone disease and other serious illnesses. With a deep and broad pipeline of potential new medicines, Amgen remains committed to advancing science to dramatically improve people's lives. To learn more about our pioneering science and vital medicines, visit http://www.amgen.com/. Follow us on http://twitter.com/amgen.

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Schedule

Products

[*]

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

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Exhibit 10.16

AMENDMENT NO. 1
TO THE
EXCLUSIVE LICENSE AGREEMENT

This **AMENDMENT NO. 1 TO THE EXCLUSIVE LICENSE AGREEMENT** (this "***Amendment***"), dated as of October 22, 2012 (the "***Amendment Effective Date***"), is made by and between **AMGEN INC.**, a Delaware corporation having an address of One Amgen Center Drive, Thousand Oaks, California 91320-1799 ("***Amgen***"), and **NINA BIOTHERAPEUTICS, INC.**, a Delaware corporation ("***Licensee***").

WHEREAS, Amgen and Licensee entered into that certain Exclusive License Agreement, dated as of September 7, 2012 (the "***Agreement***"), pursuant to which Licensee received certain rights to develop and commercialize the Products (as defined in the Agreement);

WHEREAS, Amgen and Licensee wish to update certain portions of the Agreement.

NOW, THEREFORE, in consideration of the mutual promises and covenants hereinafter set forth, the Parties hereto agree to amend the Agreement as follows:

ARTICLE 1 - AMENDMENT

Capitalized terms used in this Amendment and not otherwise defined herein shall have the meanings ascribed to such terms in the Agreement.

1.1 **Correction of Licensee Name.** All references in the Agreement to "Nina Biosciences" are hereby amended to refer instead to "Nina Biotherapeutics".

1.2 **Amendments to Section 1.3 of Licensed Know-How Schedule (AMG 842 and M43 Research Analytical Assays, Methods and Materials).** The following table shall be appended to the end of the Section under the heading "Additional Materials":

Material/ Reagent	Lot. No./Batch ID	Expiration Date	Amount Provided
[*]	[*]	[*]	[*]

1.3 **Amendment of Section 1.5 of Licensed Know-How Schedule (Pending Licensed Know-How).** Section 1.5 of the Licensed Know-How Schedule shall be replaced in its entirety with the following: "[Section intentionally left blank.]"

1.4 **Amendment of Press Release Schedule.** The Press Release Schedule shall be replaced in its entirety with the revised press release attached to this Amendment as Schedule 1.

ARTICLE 2 - REFERENCE TO AND EFFECT ON THE AGREEMENT

2.1 **Reference to Agreement.** Upon and after the effectiveness of this Amendment, each reference in the Agreement to "this Agreement", "hereunder", "hereof" or words of like import referring to the Agreement shall mean and be a reference to the Agreement as modified and amended hereby.

2.2 **Effectiveness of Amendment.** Upon execution and delivery of this Amendment by both Parties, the amendments set forth above shall be effective as of the Amendment Effective Date. Except as specifically amended above, the Agreement is and shall continue to be in full force and effect and is hereby in all respects ratified and confirmed and shall constitute the legal, valid, binding and enforceable obligations of the Parties.

2.3 **No Waiver.** The execution, delivery and effectiveness of this Amendment shall not operate as a waiver of any right, power or remedy of either Party under the Agreement, nor constitute a waiver of any provision of the Agreement.

ARTICLE 3 - MISCELLANEOUS

3.1 **Governing Law.** This Amendment shall be governed by and construed in accordance with the laws of [*], as applied to agreements executed and performed entirely within [*], without regard to any applicable principles of conflicts of law. Each of the Parties hereby irrevocably and unconditionally consents to the exclusive jurisdiction of the courts of [*] for any matter arising out of or relating to this Amendment and the transactions contemplated hereby.

3.2 **Headings.** The heading for each article and section in this Amendment has been inserted for convenience of reference only and is not intended to limit or expand on the meaning of the language contained in the particular article or section.

3.3 **Counterparts.** This Amendment may be executed in two (2) or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

[Signature page follows]

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

IN WITNESS THEREOF, duly authorized representatives of the Parties hereto have executed this Amendment as of the date first set forth above.

Nina Biotherapeutics, Inc.

By: /s/ Isaac Ciechanover
Name: Isaac Ciechanover
Title: CEO

Amgen Inc.

By: /s/ Jonathan Peacock
Name: Jonathan Peacock
Title: Executive Vice President & CFO

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Schedule 1

Revised Press Release

Amgen and KPCB Partner to Create Atara Biotherapeutics

AMGEN AND KLEINER PERKINS CAUFIELD & BYERS PARTNER TO CREATE NEW SPIN-OUT BIOTECH COMPANY

Amgen to License Pipeline Assets to Newly Formed Company

THOUSAND OAKS, Calif. and MENLO PARK, Calif. (Oct. 25, 2012) – Amgen and Kleiner Perkins Caufield & Byers (KPCB) today announced the formation of Atara Biotherapeutics, (**www.atarabio.com**), a new drug development company with a focus on innovative therapies for patients with chronic diseases in therapeutic areas including nephrology and oncology. Atara Biotherapeutics will have licenses to six Amgen assets, which are in various stages of development, ranging from preclinical to Phase 1. Financial terms of the transaction are not being disclosed.

Atara Biotherapeutics will be financed initially by KPCB, and Isaac Ciechanover, M.D., a former partner at KPCB, will serve as the president and chief executive officer. Amgen will have a minority equity interest in Atara Biotherapeutics.

“Amgen is excited to partner with KPCB to help advance molecules in Amgen’s pipeline that have the potential to treat serious illnesses,” said Sean E. Harper, M.D., executive vice president of Research and Development at Amgen. “With facilities in both the Bay Area and near Amgen’s Thousand Oaks campus, Atara Biotherapeutics will provide the opportunity to further foster biotechnology innovation in Amgen’s communities.”

“We look forward to building on Amgen’s research to bring a promising group of therapeutics to patients with serious illnesses,” said Ciechanover.

About Amgen

Amgen discovers, develops, manufactures and delivers innovative human therapeutics.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

A biotechnology pioneer since 1980, Amgen was one of the first companies to realize the new science's promise by bringing safe and effective medicines from lab to manufacturing plant to patient. Amgen therapeutics have changed the practice of medicine, helping millions of people around the world in the fight against cancer, kidney disease, rheumatoid arthritis, bone disease and other serious illnesses. With a deep and broad pipeline of potential new medicines, Amgen remains committed to advancing science to dramatically improve people's lives. To learn more about our pioneering science and our vital medicines, visit **www.amgen.com**. Follow us on **www.twitter.com/amgen**.

About Kleiner Perkins Kleiner Perkins Caufield & Byers (KPCB) has backed entrepreneurs in more than 500 ventures leading to 150 IPOs, 350,000 jobs and a deep strategic network. The firm has helped build pioneering companies like Align, Amazon, Electronic Arts, Genentech, Genomic Health, Google, Intuit, Juniper Networks, Netscape, Symantec, VeriSign and WebMD. KPCB partners serve on the boards of Amazon, Apple, Bloom Energy, Flipboard, Foundation Medicine, Google, Hewlett-Packard, Nest, Square, Tesaro and Zynga, among others. KPCB accelerates the success of entrepreneurs with a team of partners delivering company-building services including strategy, operational scaling, recruiting, business development and product delivery. The firm invests in all stages from seed and incubation to growth companies. KPCB operates from offices in Menlo Park, San Francisco, Shanghai and Beijing. **http://www.kpcb.com**.

Forward-Looking Statements This news release contains forward-looking statements that involve significant risks and uncertainties, including those discussed below and others that can be found in Amgen's Form 10-K for the year ended Dec. 31, 2011, and in its periodic reports on Form 10-Q and Form 8-K. Amgen is providing this information as of the date of this news release and does not undertake any obligation to update any forward-looking statements contained in this document as a result of new information, future events or otherwise.

No forward-looking statement can be guaranteed and actual results may differ materially from those Amgen projects. Amgen's results may be affected by Amgen's ability to successfully market both new and existing products domestically and internationally, clinical and regulatory developments (domestic or foreign) involving current and future products, sales growth of recently launched products, competition from other products (domestic or foreign), difficulties or delays in manufacturing its products. In addition, sales of Amgen products are affected by reimbursement policies imposed by third-party payors, including governments, private insurance plans and managed care providers and may be affected by regulatory, clinical and guideline developments and domestic and international trends toward managed care and healthcare cost containment as well as U.S. legislation affecting pharmaceutical pricing and reimbursement. Government and others' regulations and reimbursement policies may affect the development, usage and pricing of Amgen products. Furthermore, Amgen's research, testing, pricing, marketing and other operations are subject to extensive regulation by domestic and foreign government regulatory authorities. Amgen or others could identify safety, side effects or manufacturing problems with Amgen products after they are on the market. Amgen's business may be impacted by government investigations, litigation and products liability claims. Further, while Amgen routinely obtains patents for its products and technology, the protection offered by its patents and patent applications may be challenged, invalidated or circumvented by its competitors. Amgen depends on third parties for a significant portion of its manufacturing capacity for the supply of certain of its current and future products and limits on supply may constrain sales of certain of its current products and product candidate development. In addition, Amgen competes with other companies with respect to some of its marketed products as well as for the discovery and development of new products. Discovery or identification of new product candidates cannot be guaranteed and movement from concept to product is uncertain; consequently, there can be no guarantee that any particular product candidate will be successful and become a commercial product. Further, some raw materials, medical devices and component parts for Amgen products are supplied by sole third-party suppliers. Amgen's business performance could affect or limit the ability of its Board of Directors to declare a dividend or its ability to pay a dividend or repurchase its common stock.

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Exhibit 10.17

AMENDMENT NO. 2
TO THE
EXCLUSIVE LICENSE AGREEMENT

This **AMENDMENT NO. 2 TO THE EXCLUSIVE LICENSE AGREEMENT (**this "***Amendment***"), dated as of September 7, 2012 (the "***Amendment Effective Date***"), is made by and between **AMGEN INC.**, a Delaware corporation having an address of One Amgen Center Drive, Thousand Oaks, California 91320-1799 ("***Amgen***"), and **NINA BIOTHERAPEUTICS, INC.,** a Delaware corporation having an address of 3260 Bayshore Blvd, Brisbane, California 94005 ("***Licensee***").

WHEREAS, Amgen and Licensee entered into that certain Exclusive License Agreement, dated as of September 7, 2012 and amended as of October 22, 2012 (the "***Agreement***"), pursuant to which Licensee received certain rights to develop and commercialize the Products (as defined in the Agreement);

WHEREAS, Amgen and Licensee wish to update certain portions of the Agreement.

NOW, THEREFORE, in consideration of the mutual promises and covenants hereinafter set forth, the Parties hereto agree to amend the Agreement as follows:

ARTICLE 1 - AMENDMENT

Capitalized terms used in this Amendment and not otherwise defined herein shall have the meanings ascribed to such terms in the Agreement.

1.1 **Amendment of Section 5.2.** The third sentence in Section 5.2 is hereby amended and restated in its entirety as follows:

"In addition to the obligations of Company to use Commercially Reasonable Efforts, if Company, its Affiliates and/or their respective Sub-licensees have not [*], Company shall promptly (but in no event later than [*] after each such applicable date) notify Amgen in writing of such failure to achieve such event (a "**Specified Diligence Failure**") in a timely manner (the "**Diligence Notice**"); *provided* that if Company either (A) fails to timely [*] despite its good faith efforts to do so or (B) has a Specified Diligence Failure as a result of [*] as required under [*], then the deadline described above shall be equitably extended to account for [*] to comply therewith (provided, in the case of a failure under clause (A), such equitable extension shall [*])."

1.2 **Amendment of Products Schedule.** The sequence for AMG 842 described on the Products Schedule to the Agreeement is hereby amended and restated in its entirety as set forth on Schedule 1 to this Amendment.

ARTICLE 2 – REFERENCE TO AND EFFECT ON THE AGREEMENT

2.1 **Reference to Agreement.** Upon and after the effectiveness of this Amendment, each reference in the Agreement to "this Agreement", "hereunder", "hereof" or words of like import referring to the Agreement shall mean and be a reference to the Agreement as modified and amended hereby.

2.2 **Effectiveness of Amendment.** Upon execution and delivery of this Amendment by both Parties, the amendments set forth above shall be effective as of the Amendment Effective Date. Except as specifically amended above, the Agreement is and shall continue to be in full force and effect and is hereby in all respects ratified and confirmed and shall constitute the legal, valid, binding and enforceable obligations of the Parties.

2.3 **No Waiver.** The execution, delivery and effectiveness of this Amendment shall not operate as a waiver of any right, power or remedy of either Party under the Agreement, nor constitute a waiver of any provision of the Agreement.

ARTICLE 3 – MISCELLANEOUS

3.1 **Governing Law.** This Amendment shall be governed by and construed in accordance with the laws of [*], as applied to agreements executed and performed entirely within [*], without regard to any applicable principles of conflicts of law. Each of the Parties hereby irrevocably and unconditionally consents to the exclusive jurisdiction of the courts of [*] for any matter arising out of or relating to this Amendment and the transactions contemplated hereby.

3.2 **Headings.** The heading for each article and section in this Amendment has been inserted for convenience of reference only and is not intended to limit or expand on the meaning of the language contained in the particular article or section.

3.3 **Counterparts.** This Amendment may be executed in two (2) or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

[Signature page follows]

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

IN WITNESS THEREOF, duly authorized representatives of the Parties hereto have executed this Amendment as of the date first set forth above.

NINA BIOTHERAPEUTICS, INC.

By: /s/ Isaac Ciechanover
Name: Isaac Ciechanover
Title: CEO

AMGEN INC.

By: /s/ David Piacquad
Name: David Piacquad
Title: Senior Vice President,
Business Development

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Schedule 1 to Amendment No. 2 to the Exclusive License Agreement

Schedule

Products

[*]

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Exhibit 10.18

EXCLUSIVE LICENSE AGREEMENT

by and between

AMGEN INC.

and

PINTA BIOSCIENCES, INC.

Dated as of September 7, 2012

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

LIST OF SCHEDULES

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

EXCLUSIVE LICENSE AGREEMENT

This **EXCLUSIVE LICENSE AGREEMENT** (this "**Agreement**") is entered into as of September 7, 2012 (the "**Signing Date**") by and between **AMGEN INC.**, a Delaware corporation having an address at One Amgen Center Drive, Thousand Oaks, California 91320 ("**Amgen**"), and **PINTA BIOSCIENCES, INC.,** a Delaware corporation ("**Company**"). Company and Amgen are sometimes referred to herein individually as a "**Party**" and collectively as the "**Parties**".

RECITALS

WHEREAS, Amgen is a company engaged in the research, development, manufacturing and commercialization of pharmaceutical and biotechnology products;

WHEREAS, Amgen possesses certain rights to patents and other intellectual property related to its proprietary compound AMG 745, comprising the amino acid sequence set forth on the Product Schedule (the "**Product**");

WHEREAS, Company desires to license from Amgen such intellectual property rights, and to commercially develop, manufacture, use and distribute the Product based upon the same throughout the Territory (defined below); and

WHEREAS, Amgen desires to grant such a license to Company in accordance with the terms and conditions of this Agreement.

NOW, THEREFORE, in consideration of the premises and the mutual promises and covenants contained in this Agreement, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereto agree as follows:

ARTICLE 1 DEFINITIONS

All references to particular Schedules, Articles or Sections shall mean the Schedules to, and Articles and Sections of, this Agreement, unless otherwise specified. For the purposes of this Agreement and the Schedules hereto, the following words and phrases shall have the following meanings:

"**Abandoned Patent Right**" has the meaning set forth in Section 4.2 (Amgen Step-In Right).

"**Affiliate**" means, with respect to any Person, any other Person which controls, is controlled by or is under common control with such Person, for as long as such control exists. For purposes of this Section, "control" means the direct or indirect ownership of more than fifty percent (50%) of the voting or economic interest of a Person, or the power, whether pursuant to contract, ownership of securities or otherwise, to direct the management and policies of a Person. For clarity, once a Person ceases to be an Affiliate of a Party, then, without any further action, such Person shall cease to have any rights, including license and sublicense rights, under this Agreement by reason of being an Affiliate of such Party.

"**Agreement**" has the meaning set forth in the Preamble.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

"**Amgen**" has the meaning set forth in the Preamble.

"**Amgen Acquiree**" has the meaning set forth in Section 11.9 (Sale Transaction or Amgen Acquisition).

"**Amgen Acquisition**" has the meaning set forth in Section 11.9 (Sale Transaction or Amgen Acquisition),

"**Amgen Cell Line**" shall mean the proprietary cell line that Amgen has developed for the generation of the Product. For avoidance of doubt, the Amgen Cell Line is a Licensed Material hereunder.

"**Amgen Indemnified Parties**" has the meaning set forth in Section 8.1.2 (By Company).

"**Audited Party**" has the meaning set forth in Section 3.9 (Records and Audits).

"**BLA**" means (a) a Biologics License Application, supplemental Biologics License Application, or similar application filed or to be filed with the FDA, as described in Title 21 of the U.S. Code of Federal Regulations, Part 601, *et seq.*, or (b) any corresponding foreign application in another country or regulatory jurisdiction in the Territory, including, in the case of the European Union, a Marketing Approval Application filed with the EMA pursuant to the centralized approval procedure or with the applicable Regulatory Authority of a country in the European Union with respect to the mutual recognition or any other national approval procedure.

"**cGMP**" means the FDA's current good manufacturing practices, as specified in 21 C.F.R. §§ 210 and 211 and the FDA's guidance documents and all successor regulations and guidance documents thereto, and foreign equivalents thereof with respect to the European Union and Canada.

"**Closing Date**" means the first date on which the Company sells Series A Preferred Stock and Series A-1 Preferred Stock to its initial investors, including Amgen.

"**Commercially Reasonable Efforts**" means those efforts and resources commensurate with those efforts commonly used in the biopharmaceutical industry by a company of comparable size in connection with the development or commercialization of biopharmaceutical products that are of similar status, including, with respect to commercial potential, the proprietary position of the product, the regulatory status and approval process, the probable profitability of the applicable product, and other relevant factors such as technical, legal, scientific or medical factors. In determining the level of efforts constituting "**Commercially Reasonable Efforts**," the following shall [*].

"**Company**" has the meaning set forth in the Preamble.

"**Company Indemnified Parties**" has the meaning set forth in Section 8.1.1 (By Amgen).

"**Confidential Information**" has the meaning set forth in Section 9.1.1 (Confidential Information).

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

"**Control**" or "**Controlled**" means, with respect to any Know-How, material, Patent Right, or other intellectual property right, the possession (whether by ownership or license) by a Party or its Affiliates of the ability to grant to the other Party a license or access as provided herein to such Know-How, material, Patent Right, or other intellectual property right, without violating the terms of any agreement or other arrangement with any Third Party, or being obligated to pay any royalties or other consideration therefor, in existence as of the time such Party or its Affiliates would first be required hereunder to grant the other Party such license or access.

"**Cover**" means (a) with respect to Licensed Know-How, the Exploitation of the product would require use of such Licensed Know-How, and (b) with respect to a Patent Right, a Valid Claim would (absent a license thereunder or ownership thereof) be Infringed by the Exploitation of the product; *provided* that in determining whether a Valid Claim that is a claim of a pending application would be Infringed, it shall be treated as if issued as then currently prosecuted. Cognates of the word "**Cover**" shall have correlative meanings.

"**Defending Party**" has the meaning set forth in Section 4.4 (Defense of Third Party Claims).

"**Diligence Notice**" has the meaning set forth in Section 5.2 (Diligence).

"**Disclosing Party**" has the meaning set forth in Section 9.1.1 (Confidential Information).

"**Dispute**" has the meaning set forth in Section 10.2.1(b).

"[*] **Agreement**" means that certain [*] Agreement, dated as of [*], between Amgen and [*], which agreement is one of the Pre-Existing Agreements hereunder.

"**EMA**" means the European Medicines Agency or any successor entity thereto.

"**Enforcing Party**" has the meaning set forth in Section 4.3.3 (Progress Reports; Participation).

"**Exploit**" means to research, develop, improve, make, use, offer for sale, sell, import, export or otherwise exploit, or transfer possession of or title in, a product. Cognates of the word "Exploit" shall have correlative meanings.

"**FDA**" means the United States Food and Drug Administration or any successor entity thereto.

"**Field**" means any and all human and veterinary uses.

"**First Commercial Sale**" means, with respect to the Product in any country, the first sale to a Third Party for end use or consumption of the Product in such country after a BLA has been granted in such country for the Product.

"**Framework Patents**" means any Patent Right (other than a Licensed Patent) Controlled by Amgen or its Affiliates as of the Effective Date that: (i) has a claim that is infringed by the amino acid sequence of the Product, (ii) has a claim that is infringed by a nucleic acid sequence that encodes the amino acid sequence of the Product, or (iii) has a claim that claims Licensed Know How.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

"**FTE**" means the equivalent of the work of one employee full time for one year consisting of at least a total of [*] weeks or [*] hours per year (excluding vacations and holidays). No one person shall be permitted to account for more than one FTE.

"**FTE Rate**" means $[*] per FTE per year.

"**GAAP**" means the then-current generally accepted accounting principles in the United States as established by the Financial Accounting Standards Board or any successor entity or other entity generally recognized as having the right to establish such principles in the United States, in each case consistently applied. Unless otherwise defined or stated herein, financial terms shall be calculated under GAAP.

"**Governmental Authority**" means any court, agency, department, authority or other instrumentality of any national, state, county, city or other political subdivision.

"**IND**" means an Investigational New Drug Application filed with the FDA for human clinical testing of a drug or any foreign equivalent thereof.

"**Indication**" means the disease or condition for which an IND has been filed.

"**Infringe**" or "**Infringement**" means any infringement as determined by Law, including, without limitation, direct infringement, contributory infringement or any inducement to infringe.

"**Issuing Party**" has the meaning set forth in Section 9.2.2 (Review),

"**Japan Agreement**" means (a) the Takeda License Agreement or (b) following any termination of the Takeda License Agreement with respect to the Product, any agreement whereby the Japan Licensee has received the authorization to develop and/or commercialize the Product in Japan.

"**Japan Licensee**" means (a) Takeda or (b) following any termination of the Japan Agreement with respect to the Product, any Person who has rights to develop and/or commercialize the Product in Japan, including Amgen and/or its Affiliates if Amgen elects to retain any rights to develop and/or commercialize the Product in Japan.

"**Know-How**" means techniques, technology, trade secrets, inventions (whether patentable or not), methods, know-how, data and results (including pharmacological, toxicological and clinical data and results), analytical and quality control data and results, regulatory documents, and other information, compositions of matter, cells, cell lines, assays, animal models and other physical, biological, or chemical material.

"**Law**" means, individually and collectively, any and all laws, ordinances, rules, directives, administrative circulars and regulations of any kind whatsoever of any Governmental Authority within the applicable jurisdiction.

"**Licensed Know-How**" means all Know-How that both (a) is Controlled by Amgen and (b) was actually used by Amgen in its development of the Product at such time as Amgen last actively developed the Product prior to the Closing Date, including the Know-How set forth on the

Licensed Know-How Schedule; *provided* that manufacturing process-related Know-How relating to the Product shall only be included in "Licensed Know-How" to the extent Amgen actually used such Know-How in its manufacture of the Product Lots. [*]

"**Licensed Materials**" means those certain materials set forth on the Licensed Materials Schedule.

"**Licensed Patents**" means the Patent Rights set forth on the Licensed Patents Schedule.

"**Losses**" has the meaning set forth in Section 8.1.1 (By Amgen).

"**Marketing Approval**" means all approvals, licenses, registrations or authorizations of the Regulatory Authority in a country, necessary for the manufacture, use, storage, import, marketing and sale of the Product in such country.

"**Milestone Events**" has the meaning set forth in Section 3.3 (Milestone Payments).

"**Milestone Payments**" has the meaning set forth in Section 3.3 (Milestone Payments).

"**Net Sales**" means the gross sales price of the Product sold by Company, its Affiliates or Sublicensee(s) (the "**Selling Party**") for the sale of the Product to Third Parties, less:

(a) non-recoverable sales taxes, excise taxes, use taxes, value-added tax, and duties paid by the Selling Party in relation to the Product and any other equivalent governmental charges imposed upon the importation, use or sale of the Product (excluding taxes when assessed on income derived from sales);

(b) credits and allowances (actually allowed or paid) for defective or returned Product, including allowances for spoiled, damaged, out-dated, rejected, returned, withdrawn or recalled Product;

(c) reasonable fees paid to wholesalers, distributors, selling agents (excluding any sales representatives of a Selling Party), group purchasing organizations, Third Party payors, other contractees and managed care entities;

(d) reasonable transportation charges relating to the Product, including handling charges and insurance premiums relating thereto to the extent included as a separate entry on the invoice for such product (*provided* that [*] items in this clause (d) shall [*] for the relevant period);

(e) retroactive price reductions actually granted to the Third Party applicable to sales of such product;

(f) trade, cash, prompt payment and/or quantity discounts, actually allowed and taken directly by the Third Party, and mandated discounts; and

(g) refunds, rebates, chargebacks and other allowances or payments to Governmental Authorities.

Net Sales shall be determined from books and records maintained in accordance with GAAP, consistently applied throughout the organization and across all products of the entity whose sales of Product are giving rise to Net Sales.

Where a Product is sold in combination with other therapeutically active ingredients, the Net Sales applicable to such transaction shall be calculated by multiplying the total Net Sales of such combined product by the fraction A/(A+B), where A is the actual price of the Product in the same dosage amount or quantities hi the applicable country during the applicable quarter if sold separately, and B is the sum of the actual prices of all other therapeutics with which the Product is combined, in the same dosage amount or quantities in the applicable country during the applicable quarter if sold separately. If A or B cannot be determined because values for the Product or other therapeutics with which the Product is combined are not available separately in a particular country, then Amgen and Company shall discuss an appropriate allocation for the fair market value of the Product and other therapeutics with which the Product is combined to mutually determine Net Sales for the relevant transactions based on an equitable method of determining the same that takes into account, in the Territory, variations in potency, the relative contribution of each therapeutically active ingredient, and relative value to the end user of each therapeutically active ingredient.

Net Sales shall also include, with respect to any Product sold or otherwise disposed of for any consideration other than an exclusively monetary consideration on bona fide arm's length terms, an amount equal to the average sales price for the Product having the same dosage form and strength during the applicable reporting period in the country where such sale or other disposal occurred when the Product is sold alone and not with other products, or if the Product is not sold alone in such country during the applicable reporting period, then an amount equal to the average sales price during the applicable reporting period generally achieved for the Product having the same dosage form and strength in the rest of the Territory.

Sales of Product between or among Company and its Affiliates or Sublicensees shall be excluded from the computation of Net Sales and no payments shall be payable on such sales except where such Affiliates or Sublicensees are end users.

"**Out-License**" has the meaning set forth in Section 2.3 (Right of Notification).

"**Out-License Fees**" has the meaning set forth in Section 3.5 (Product Sublicensing Income).

"**Party**" has the meaning set forth in the Preamble.

"**Patent Rights**" means any provisional and non-provisional patents and patent applications, together with all additions, divisions, continuations, continuations-in-part, substitutions, reissues, re-examinations, issued patents, substitutes, foreign counterparts, extensions, registrations, patent term extensions, supplemental protection certificates, renewals and the like with respect to any of the foregoing.

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"**Permitted CMO**" means (a) a Third Party commercial manufacturing organization identified on the attached Permitted CMO Schedule (and all such Third Party's Affiliates), as such schedule may be updated by mutual written agreement by the Parties from time to time or (b) any other party deemed to be a Permitted CMO pursuant to the terms of Section 2.4.2.

"**Permitted CMO Agreement**" has the meaning set forth in Section 2.4.2(a) (Transfer of Licensed Know-How and Licensed Materials).

"**Permitted CMO Request**" has the meaning set forth in Section 2.4.2(d) (Transfer of Licensed Know-How and Licensed Materials).

"**Person**" means any corporation, limited or general partnership, limited liability company, joint venture, trust, unincorporated association, governmental body, authority, bureau or agency, any other entity or body, or an individual.

"**Phase 1 Clinical Trial**" means any human clinical trial of the Product that satisfies the requirements of 21 C.F.R. § 312.21(a), or its successor regulation, or its non-United States equivalents, including the portion of a combination Phase 1 Clinical Trial and Phase 2 Clinical Trial that is the Phase 1 component, in accordance with the applicable protocol and as reasonably designated by Company.

"**Phase 2 Clinical Trial**" means any human clinical trial of the Product that satisfies the requirements of 21 C.F.R. § 312.21(b), or its successor regulation, or its non-United States equivalents, including the portion of a combination Phase 2 Clinical Trial and Phase 3 Clinical Trial that is the Phase 2 component, in accordance with the applicable protocol and as reasonably designated by Company.

"**Phase 3 Clinical Trial**" means any human clinical trial of the Product that satisfies the requirements of 21 C.F.R. § 312.21(c), or its successor regulation, or its non-United States equivalents, including the portion of a combination Phase 2 Clinical Trial and Phase 3 Clinical Trial that is the Phase 3 component, in accordance with the applicable protocol and as reasonably designated by Company.

"**Pivotal Trial**" means (a) a Phase 2 Clinical Trial, or a combination Phase 2 Clinical Trial and Phase 3 Clinical Trial, that (taken together with any other trials completed prior to or concurrently with such trial) is intended to support Marketing Approval for the Product by the relevant Regulatory Authority in the indication under study, or (b) a Phase 3 Clinical Trial.

"**Pre-Existing Agreements**" means those agreements listed on the Pre-Existing Agreements Schedule.

"**Product**" has the meaning set forth in the Recitals.

"**Product Data**" means all data, reports, records, materials and other Know-How that relate to Product.

"**Product Lots**" has the meaning set forth in Section 5.4 (Product Supply).

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"**Product Technology**" means the Licensed Patents and the Licensed Know-How.

"**Quality Agreement**" means that certain quality agreement, by and between the Parties, to be entered into as of the Closing Date and to be attached substantially in the form of hereto as the Quality Agreement Schedule.

"**Receiving Party**" has the meaning set forth in Section 9.1.1 (Confidential Information).

"**Regulatory Authority**" means any Governmental Authority or other authority responsible for granting Marketing Approvals for the Product, including the FDA, EMA and any corresponding national or regional regulatory authorities.

"**Regulatory Change**" has the meaning set forth in Section 5.2 (Diligence).

"**Regulatory Exclusivity**" means, with respect to the Product in a country, any exclusive marketing rights or data exclusivity rights conferred by the applicable Regulatory Authority in such country with respect to the Product, other than a Patent Right.

"**Regulatory Filing**" means any filing with any Governmental Authority with respect to the research, development, manufacture, distribution, pricing, reimbursement, marketing or sale of the Product.

"**Release**" has the meaning set forth in Section 9.2.2 (Review).

"**Reviewing Party**" has the meaning set forth in Section 9.2.2 (Review),

"**Royalty Term**" has the meaning set forth in Section 3.4 (Royalties).

"**Sale Transaction**" has the meaning set forth in Section 11.8 (Successors and Assigns).

"**Selling Party**" has the meaning set forth in the definition of "Net Sales".

"**Signing Date**" has the meaning set forth in the Preamble.

"**Specified Diligence Failure**" has the meaning set forth in Section 5.2 (Diligence).

"**Sublicensee(s)**" means any Person other than an Affiliate of Company to which Company has granted a sublicense under this Agreement.

"**Supply Agreement**" means that certain supply agreement, by and between the Parties, to be entered into as of the Closing Date and to be attached substantially in the form of hereto as the Supply Agreement Schedule.

"**Takeda**" means Takeda Pharmaceutical Company Limited] or any successor or permitted assignee of Takeda.

"**Takeda License Agreement**" means that certain License Agreement, dated as of February 1, 2008, by and between Amgen and Takeda, as amended.

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"**Term**" has the meaning set forth in Section 10.1 (Term).

"**Territory**" means the entire world, excluding Japan.

"**Third Party**" means a Person other than (a) Amgen or any of its Affiliates and (b) Company or any of its Affiliates.

"**Third Party Acquirer**" has the meaning set forth in Section 11.9 (Sale Transaction or Amgen Acquisition).

"**Third Party Payment**" has the meaning set forth in Section 6.4 (Product Data; Regulatory).

"**United States**" or "U.S." means the United States of America (including the District of Columbia).

"**Valid Claim**" means a claim of any issued and unexpired patent or patent application within the Licensed Patents and that has not been held invalid or unenforceable by a final decision of a court or governmental agency of competent jurisdiction, which decision can no longer be appealed or was not appealed within the time allowed; *provided* that if a claim of a pending patent application within the Licensed Patents [*], such claim shall not constitute a Valid Claim for the purposes of this Agreement [*].

ARTICLE 2 LICENSE GRANT; CLOSING

Section 2.1 Grant. Subject to the terms and conditions of this Agreement, commencing on the Closing Date, Amgen hereby grants to Company (a) an exclusive (even as to Amgen and its Affiliates), royalty bearing, sublicenseable (but only in accordance with Section 2.2 (Sublicenses) and Section 2.3 (Right of Notification)), license under the Licensed Patents, (b) a non-exclusive, royalty bearing, sublicenseable (but only in accordance with Section 2.2 (Sublicenses) and Section 2.3 (Right of Notification)) license under the Licensed Know-How, and (c) an exclusive (even as to Amgen and its Affiliates) license and right of reference, with the right to grant sublicenses and further rights of reference (but only in accordance with Section 2.2 (Sublicenses) and Section 2.3 (Right of Notification)), under any existing Regulatory Filings that Amgen or any of its Affiliates Controls with respect to the Product; in each case, to Exploit the Product in the Field in the Territory during the Term. Notwithstanding the foregoing, the Licensed Know-How shall be sublicenseable only in connection with the rights of Company with respect to the Product and not with respect to any other products or services.

2.1.1 Covenant Not to Sue. In addition to the licenses set forth in this Section 2.1 (Grant) above, commencing on the Closing Date, Amgen hereby covenants not to sue Company, its Affiliates or any Sublicensee under the Framework Patents with respect to the Exploitation of the Product in the Field in the Territory. Subject to Section 11.8 (Successors and Assigns), the Company may transfer this Covenant Not to Sue. Amgen shall require any Amgen successor in interest to the Framework Patents to also covenant not to sue Company, its Affiliates or any Sublicensee under the Framework Patents with respect to the Exploitation of the Product in the Field in the Territory. Should Amgen fail to secure such a covenant from a successor in interest, then immediately prior to the transfer of the Framework Patents to the successor in interest, Amgen will be deemed to have granted to Company a non-exclusive, fully paid-up, royalty-free, sublicenseable license under the Framework Patents to Exploit the Product in the Field in the Territory during the Term.

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Section 2.2 Sublicenses. Subject to compliance by Company with its obligations under Section 2.3 (Right of Notification) below, commencing on the Closing Date, the licenses granted in Section 2.1 (Grant) (including, if applicable, in the last sentence of Section 2.11 (Covenant Not to Sue)) may be sublicensed, in full or in part, by Company to its Affiliates and Third Parties (with the right to sublicense through multiple tiers), *provided* that as a condition precedent to and requirement of any such sublicense:

(a) Any such permitted sublicense shall be in writing and shall be consistent with and subject to the terms and conditions of this Agreement;

(b) Company shall be responsible for any and all obligations of such Sublicensee as if such Sublicensee were "Company" hereunder; and

(c) Any such Sublicensee shall agree in writing to be bound by the substantially similar obligations of Company hereunder that are relevant to the rights sublicensed by Company to Sublicensee under such sublicense agreement, including with respect to Article 9 (Confidentiality), and Sections 2.7 (Limited Exploitation Rights), 8.1 (Indemnity), 10.2.2 (Termination for IP Challenge), and 10.5 (Effects of Termination).

Company shall provide Amgen, within [*] days following execution of each sublicense, prompt written notice thereof (which notice shall include the name of the Sublicensee and the general scope of such sublicense). Thereafter, upon Amgen's reasonable request, Company shall provide to Amgen a copy of any such sublicense agreement executed by Company; *provided* that the financial terms (and any other terms Company is required to keep confidential) of any such sublicense agreement may be redacted to the extent not pertinent to an understanding of a Party's rights or obligations under this Agreement.

Section 2.3 Right of Notification.

2.3.1 Intentionally omitted.

2.3.2 If Company's board of directors approves the initiation of a process for the grant of a sublicense to a Third Party for development and/or commercialization of the Product (an "**Out-License**"), then Company shall notify Amgen in writing in advance (*provided* that a signed letter sent via electronic or facsimile transmission shall qualify as such written notice) and provide the intended scope (*i.e.*, field, territory and other relevant terms) of the Out-License.

2.3.3 Upon the Completion of an Initial Public Offering (as defined in the investor rights agreement to be entered into by the Parties) or a sale of all or substantially all of Company's assets or business, Amgen's rights under this Section 2.3 (Right of Notification) shall terminate.

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Section 2.4 Transfer of Licensed Know-How and Licensed Materials. Amgen shall transfer to Company (or, in the case of Amgen's transfer of the Amgen Cell Line, to the Permitted CMO) the Licensed Know-How listed on the Licensed Know-How Schedule and the Licensed Materials listed on the Licensed Materials Schedule, in accordance with a schedule to be mutually agreed by the Parties (*provided* such transfer must be completed within [*] after the Closing Date), and provide limited consulting support, in accordance with this Section 2.4 (Transfer of Licensed Know-How and Licensed Materials). Following the Signing Date, the Parties will in good faith reasonably cooperate to review and, if necessary, update the Licensed Know-How and Licensed Materials Schedules to correct and/or supplement such Schedules (and, as necessary, timely deliver the relevant Licensed Know-How and Materials to the Company.

2.4.1 Amgen shall provide, at its expense, consulting support (not to exceed [*] in the aggregate) in connection with such transfer and the Exploitation of the Product in the Territory during the [*] period after the Closing Date. If Company requires additional consulting support in excess of [*] in the aggregate or beyond such period after the Closing Date in connection with such transfer or the Exploitation of the Product in the Territory, then Company may request such additional support in writing. Amgen shall notify Company within [*] after receipt of such request whether it, in its sole discretion, is willing to provide such additional consulting support, which support shall be at Company's expense, at the FTE Rate for the relevant Amgen employees.

2.4.2 With respect to Amgen's transfer of the Amgen Cell Line, the Parties agree that the following procedures shall apply:

(a) Prior to such transfer, Company shall designate, and enter into a binding agreement with, one of the Permitted CMOs, which agreement shall provide for, among other things, (i) confidentiality and non-use provisions at least as protective as those set forth hereunder under Section 9.1 (Confidential Information) and (ii) such additional provisions as are required to comply with the manufacturing and other limitations set forth in this Section 2.4.2 (such agreement, the "**Permitted CMO Agreement**"). Upon Amgen's reasonable request, Company shall provide to Amgen a copy of any such Permitted CMO Agreement (including any material amendment thereto) executed by Company; *provided* that the financial terms (and any other terms Company is required to keep confidential) of any such agreement may be redacted to the extent not pertinent to Amgen's confirmation of the restrictive provisions set forth in this Section 2.4.2. Notwithstanding anything to the contrary, Company and Company's Sublicensees are deemed Permitted CMOs, and shall not be required to enter into a Permitted CMO Agreement prior to receiving the Amgen Cell Line or conducting any manufacturing activities in connection therewith, and Amgen shall deliver such cell lines to Company and/or Company's Sublicensees within a reasonable time following Company's written request. For avoidance of doubt, if Company (itself, or through a third party, Affiliate, or Sublicensee) [*] (excluding any [*], but including any [*]) [*], such [*] shall [*], and the Permitted CMO restrictions set forth herein shall [*].

(b) Following Company's and such Permitted CMG's entry into the Permitted CMO Agreement, Amgen shall, at the direction of Company, transfer the Amgen Cell Line to the Permitted CMO to generate the Product.

(c) Company agrees that it shall not, and it shall use its commercially reasonable efforts to cause the Permitted CMO not to: (i) reverse engineer or otherwise deconstruct the Amgen Cell Line or the initial Amgen cell culture media provided therewith, or to determine or to seek to determine information (including, but not limited to, the gene or amino acid sequence) or characteristics regarding the Amgen Cell Line or such media, other than as expressly required to manufacture the Product; (ii) clone, express, or otherwise produce any products or materials (including, without limitation, any progeny or derivatives thereof) from the Amgen Cell Line, other than as expressly permitted under this Agreement; (iii) notwithstanding anything to the contrary in Section 9.4.1 (Right to Publish), publish or otherwise publicly disclose the Amgen Cell Line; or (iv) permit any non-controlled security access to the Amgen Cell Line or otherwise transfer or provide any of the Amgen Cell Line to a Third Party or any of its Affiliates, other than as expressly required to manufacture the Product.

(d) Upon a termination or expiration of the Permitted CMO Agreement (including as a result of the appointment, with prior written notice to Amgen, by Company of a replacement Permitted CMO), the Permitted CMO shall promptly return any remaining Amgen Cell Lines and related Licensed Know-How and Licensed Materials to Amgen. If, at any time, Company desires to add a new Third Party commercial manufacturer to the Permitted CMO Schedule, it shall notify Amgen in writing (a "**Permitted CMO Request**"), and Amgen shall have the right, for [*] after receipt of such Permitted CMO Request, to inspect, at a reasonable time and on a reasonable basis (at Amgen's cost), such manufacturer's facilities to confirm its ability to fully comply with the restrictive provisions set forth in this Section 2.4.2. If Amgen rejects a Permitted CMO Request pursuant to the foregoing, it will notify Company of the reason(s) for such rejection and provide reasonable detail regarding the actions Company (or the applicable Third Party commercial manufacturer) may take to remedy such reasons for rejection. If Amgen does not reject a Permitted CMO Request within the [*] notice period, the applicable Third Party shall be deemed a Permitted CMO.

(e) Notwithstanding anything to the contrary, if, outside the scope of this Agreement, Amgen allows any Third Party commercial manufacturer access to or use of the Amgen Cell Line, such Third Party shall be deemed a Permitted CMO.

2.4.3 Company acknowledges that any materials transferred by Amgen to Company (or the Permitted CMO) under this Agreement are experimental in nature and may have unknown characteristics and therefore agrees to use prudence and reasonable care in the use, handling, storage, transportation and disposition and containment of any such materials. Accordingly, no such materials, other than the Product Lots, shall be used in any human application, including any clinical trial.

Section 2.5 Intentionally omitted.

Section 2.6 No Other Rights. Each Party acknowledges that the rights and licenses granted under this Article 2 (License Grant) and elsewhere in this Agreement are limited to the scope expressly granted. Accordingly, except for the rights expressly granted under this Agreement, no right, title, or interest of any nature whatsoever is granted whether by implication, estoppel, reliance, or otherwise, by either Party to the other Party. All rights that are not specifically granted herein are reserved.

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Section 2.7 Limited Exploitation Rights. Without limiting the provisions of Section 2.6 (No Other Rights), Company agrees (on behalf of itself and its Affiliates), and shall cause each of its Sublicensees to agree as a condition to the grant of a Sublicense, not to Exploit any Licensed Know-How or Licensed Patents in connection with any products or services other than the Product.

ARTICLE 3 FEES, ROYALTIES AND PAYMENTS

Section 3.1 Upfront Payment. Company shall pay to Amgen, within [*] after the Closing Date, a non-refundable, non-creditable upfront payment of Two Hundred Fifty Thousand Dollars ($250,000).

Section 3.2 Inventory Payment. Company shall pay to Amgen, within [*] after receipt of the two (2) Product Lots delivered pursuant to Section 5.4 (Product Supply), each of which shall meet the quality requirements for such Product Lots set forth in the Quality Agreement, a non-refundable, non-creditable inventory payment of [*] (it being agreed and understood by the Parties that no such inventory payment shall be due and payable if Amgen fails to deliver both Product Lots as contemplated hereunder).

Section 3.3 Milestone Payments. Company shall pay to Amgen certain milestone payments ("**Milestone Payments**") following the first occurrence of certain milestone events, as set forth in Section 1 of the Milestones and Royalties Schedule (the "**Milestone Events**"). Company shall pay to Amgen the applicable Milestone Payment within [*] after the occurrence of the applicable Milestone Event. Each Milestone Payment is payable only once; except as set forth in Section 1 of the Milestones and Royalties Schedule, no Milestone Payment shall be payable for subsequent or repeated achievements of such Milestone Event. Each of the Milestone Payments shall be non-refundable and non-creditable. In the event that a Milestone Event relating to clinical development for the Product is achieved and payment that was due and payable with respect to the previous Milestone Event(s) for the Product has not been made by Company, then Company shall promptly pay Amgen such unpaid payment with respect to such previous Milestone Event(s) for the Product.

Section 3.4 Royalties. Company shall pay to Amgen on a calendar quarterly basis the tiered royalties set forth in Section 2 of the Milestones and Royalties Schedule on annual Net Sales of the Product sold by a Selling Party during the applicable Royalty Term, subject to the applicable deductions set forth in the Milestones and Royalties Schedule. Any such payment obligations accrued during a calendar quarter shall be made within [*] after the end of each such calendar quarter. Company's obligation to pay royalties with respect to the Product in a particular country shall commence upon the First Commercial Sale of the Product in such country and shall expire on a country-by-country basis on the later of (a) the date on which the Exploitation of the Product is no longer Covered by a Valid Claim of a Licensed Patent in such country, (b) the loss of Regulatory Exclusivity for the Product in such country, and (c) the tenth (10th) anniversary of the First Commercial Sale of the Product in such country (the "**Royalty Term**").

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Section 3.5 Product Sublicensing Income. Without limiting Amgen's rights under Section 2.3 (Right of Notification) or the payment obligations set forth in Section 3.3 (Milestone Payments) and 3.4 (Royalties), in the event that, prior to [*], Company or any of its Affiliates enters into an Out-License with a Third Party under the Product Technology for development and/or commercialization of the Product, then Company shall promptly notify Amgen in writing. Within [*] after the end of a calendar month during which Company receives any Out-License Fees (as defined below), Company shall pay to Amgen [*] of (a) any amounts paid to Company or its Affiliates by such Third Party pursuant to such Out-License, whether in the form of cash, up-front fees (including any fees paid in installments), milestone payments or otherwise and (b) the fair market value of any other consideration remitted to Company by such Third Party under such Out-License ((a) and (b) collectively, "**Out-License Fees**") received by Company in such calendar month, but excluding, in each case, (i) payments made to fund research and/or development work on, manufacturing of or royalties on Net Sales of the Product and (ii) the purchase of Company's or its Affiliates' stock (but solely to the extent that such payment is at a price equal to or less than one hundred percent (100%) of the fair market value of such stock at the date of purchase, it being understood that, for so long as [*], a stock price [*] (or, if [*]) shall be deemed to be the fair market price of such stock). To the extent such Out-License extends to technology other than the Product Technology or products other than the Product, such Out-License Fees shall be allocated between the Product Technology and the Product, on the one hand, and such other technology or products, on the other hand, on a prorated basis, based on the relative fair market values of the out-licensed technology and products. Company shall not attempt to reduce compensation rightly due to Amgen under this Section 3.5 (Product Sublicensing Income) by shifting compensation otherwise payable to Company from a Third Party with respect to the Product to another product or service for which no amounts are payable under this Section 3.5 (Product Sublicensing Income). For avoidance of doubt, any amounts paid or payable to Company in connection with the sale of all or substantially all of Company's assets or business shall not be considered "Out-License Fees." Notwithstanding anything else to the contrary hereunder, Company shall deduct from any amounts due under this Section 3.5 (Product Sublicensing Income) [*] of the payments paid to Amgen pursuant to Section 3.1 (Upfront Payment) and Section 3.2 (Inventory Payment).

Section 3.6 Method of Payment; Royalty Reporting. Unless otherwise agreed by the Parties, all payments due from Company to Amgen under this Agreement shall be paid in U.S. Dollars by wire transfer or electronic funds transfer of immediately available funds to an account designated by Amgen. After the First Commercial Sale of the Product and until expiration of the Royalty Term, Company shall prepare and deliver to Amgen royalty reports of the sale of the Product by the Selling Parties for each calendar quarter within [*] after the end of each such calendar quarter specifying in the aggregate and on a country-by-country basis: (a) total gross amounts for Product sold or otherwise disposed of by a Selling Party; (b) amounts deducted by category in accordance with the definition of "Net Sales" in Article I from gross amounts to calculate Net Sales; (c) Net Sales; and (d) royalties payable.

Section 3.7 Currency Conversion. In the case of sales outside the United States, payments received by Company shall be expressed in the U.S. Dollar equivalent calculated on a quarterly basis in the currency of the country of sale and converted to their U.S. Dollar equivalent using the average rate of exchange over the applicable calendar quarter to which the sales relate, in

accordance with (a) the then-current standard methods of Company or the applicable Sublicensee, to the extent reasonable and consistently applied and (b) GAAP; *provided* that if, at such time, Company does not use a rate for converting into U.S. Dollar equivalents that is maintained in accordance with GAAP, then Company shall use a rate of exchange which corresponds to the rate of exchange for such currency reported in *The Wall Street Journal*, Internet U.S. Edition at www.wsj.com, as of the last day of the applicable reporting period (or, if unavailable on such date, the first date thereafter on which such rate is available). Company shall inform Amgen as to the specific exchange rate translation methodology used for a particular country or countries.

Section 3.8 Late Payments. In the event that any payment due hereunder that is not the subject of a good faith dispute is not made when due, the payment shall accrue interest beginning on the day following the due date thereof, calculated at the annual rate of the sum of (a) [*] plus (b) the prime interest rate quoted by The Wall Street Journal, Internet U.S. Edition at www.wsj.com on the date said payment is due, the interest being compounded on the last day of each calendar quarter; *provided* that in no event shall said annual interest rate exceed the maximum rate permitted by Law. Each such payment when made shall be accompanied by all interest so accrued. Said interest and the payment and acceptance thereof shall not negate or waive the right of any Party to seek any other remedy, legal or equitable, to which it may be entitled because of the delinquency of any payment including, but not limited to termination of this Agreement as set forth in Article 10 (Term and Termination).

Section 3.9 Records and Audits. Company shall keep complete and accurate records relating to the calculations of Net Sales generated in the then current calendar year and payments required under this Agreement, and during the preceding [*]. Amgen shall have the right, once annually at its own expense, to have a nationally recognized, independent, certified public accounting firm, selected by it and subject to Company's prior written acceptance (which shall not be unreasonably withheld), review any such records of Company and its Affiliates and Sublicensees (the "**Audited Party**") in the location(s) where such records are maintained by the Audited Party upon reasonable written notice (which shall be no less than [*] prior written notice) and during regular business hours and under obligations of strict confidence, for the sole purpose of verifying the basis and accuracy of payments made under Sections 3.4 (Royalties) and 3,5 (Product Sublicensing Income) within the [*] period preceding the date of the request for review. No calendar year shall be subject to audit under this Section more than once. Company shall receive a copy of each such report concurrently with receipt by Amgen. Should such inspection lead to the discovery of a discrepancy to Amgen's detriment, Company shall, within [*] after receipt of such report from the accounting firm, pay any undisputed amount of the discrepancy together with interest at the rate set forth in Section 3.8 (Late Payments). Amgen shall pay the full cost of the review unless the underpayment of amounts due to Amgen is greater than [*] of the amount due for the entire period being examined, in which case Company shall pay the cost charged by such accounting firm for such review. Should the audit lead to the discovery of a discrepancy to Company's detriment, Company may credit the amount of the discrepancy, without interest, against future payments payable to Amgen under this Agreement, and if there are no such payments payable, then Amgen shall pay to Company the amount of the discrepancy, without interest, within [*] after Amgen's receipt of the report,

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Section 3.10 Taxes.

3.10.1 Sales Tax. Company is responsible for the payment of any state or local, sales or use, or similar fees or taxes arising as a result of the transfer of Licensed Materials by Amgen to Company pursuant to Section 2.4 (Transfer of Licensed Know-How and Licensed Materials) or the Product Lots pursuant to the Supply Agreement, and Company shall remit such fees or taxes to Amgen, as the collection agent, upon invoice.

3.10.2 Withholding. In the event that any Law requires Company to withhold taxes with respect to any payment to be made by Company pursuant to this Agreement, Company shall notify Amgen of such withholding requirement prior to making the payment to Amgen and provide such assistance to Amgen, including the provision of such documentation as may be required by a tax authority, as may be reasonably necessary in Amgen's efforts to claim an exemption from or reduction of such taxes. Company shall, in accordance with such Law, withhold taxes from the amount due, remit such taxes to the appropriate tax authority, and furnish Amgen with proof of payment of such taxes within [*] following the payment. If taxes are paid to a tax authority, Company shall provide reasonable assistance to Amgen to obtain a refund of taxes withheld, or obtain a credit with respect to taxes paid.

ARTICLE 4 PATENT PROSECUTION, MAINTENANCE AND INFRINGEMENT

Section 4.1 Prosecution and Maintenance.

4.1.1 Company shall have the first right to file, prosecute and maintain all Patent Rights specified under Licensed Patents (other than in Japan), in each case at Company's sole expense using outside counsel reasonably acceptable to Amgen. Company shall use Commercially Reasonable Efforts to prepare, file, prosecute, defend and maintain all such Patent Rights; *provided* that Company does not represent or warrant that any patent will issue or be granted based on patent applications contained in the Licensed Patents. Amgen shall reasonably cooperate with Company's requests for data, affidavits, and other information and assistance to support prosecution and maintenance of such Patent Rights; *provided* that Company shall reimburse Amgen for its reasonable documented out-of-pocket expenses with respect to such cooperation. Company shall, at least [*] prior to submission or within [*] of receipt, forward to Amgen copies of any significant office actions, communications, and correspondence relating to the Licensed Patents. Amgen shall have the right to comment on and to discuss such prosecution and maintenance activities with Company, and Company shall consider the same in good faith.

4.1.2 As between the Parties, Amgen (or its designee) shall have the sole right to file, prosecute and maintain the Licensed Patents in Japan. Company shall not have any obligation to file, prosecute or maintain any Licensed Patents in Japan.

Section 4.2 Amgen Step-In Right. Notwithstanding the foregoing, if Company declines to file, prosecute or maintain any Patent Rights described in Section 4.1.1, elects to allow any Patent Rights described in Section 4.1.1 to lapse in any country, or elects to abandon any such Patent Rights (in each case solely to the extent contained in the Licensed Patents) before all appeals within the respective patent office have been exhausted (each, an "**Abandoned Patent Right**"), then:

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(a) Company shall provide Amgen with reasonable notice of such decision so as to permit Amgen to decide whether to file, prosecute or maintain such Abandoned Patent Rights and to take any necessary action (which notice shall, in any event, be given no later than [*] prior to the next deadline for any action that may be taken with respect to such Abandoned Patent Right with the U.S. Patent & Trademark Office or any foreign patent office).

(b) Amgen, at Amgen's expense, may assume control of the filing, prosecution and/or maintenance of such Abandoned Patent Rights. The continued filing, prosecution or maintenance of such Abandoned Patent Rights shall be at Amgen's sole discretion.

(c) Amgen shall have the right to transfer the responsibility for such filing, prosecution and maintenance of such Abandoned Patent Rights to patent counsel (outside or internal) selected by Amgen,

(d) Company shall, at Amgen's reasonable request and expense, assist and cooperate in the filing, prosecution and maintenance of such Abandoned Patent Rights.

(e) In the event a patent issues with respect to any such Abandoned Patent Rights, Amgen shall provide reasonable notice to Company thereof and such Abandoned Patent Right shall be excluded from the license granted by Amgen to Company under Section 2.1 (Grant), unless Company (i) reimburses Amgen for its internal and external costs and expenses related to the prosecution and maintenance of such Abandoned Patent Right within [*] of issuance of any such patent and (ii) assumes, in writing, the responsibility for the continued prosecution and maintenance of such Patent Rights in accordance with the provisions of Section 4.1 (Prosecution and Maintenance).

Section 4.3 Enforcement.

4.3.1 Company Enforcement. Each Party shall notify the other promptly in writing when any Infringement by a Third Party is uncovered or reasonably suspected. Company shall have the first right to enforce any patent within the Licensed Patents (other than in Japan) against any Infringement or alleged Infringement thereof, and in each case shall at all times keep Amgen informed as to the status thereof. Company may, at its own expense, institute suit against any such infringer or alleged infringer and control, defend and settle such suit in a manner consistent with the terms and provisions hereof, and recover any damages, awards or settlements resulting therefrom, subject to Section 4.5 (Recovery). Amgen shall reasonably cooperate in any such litigation at Company's expense; where necessary, Amgen shall join in, or be named as a necessary party to, such litigation. Company shall not enter into any settlement of any claim described in this Section 4.3.1 (Company Enforcement) that admits to the invalidity or unenforceability of the Licensed Patents, incurs any financial liability on the part of Amgen, requires an admission of liability, wrongdoing or fault on the part of Amgen, without Amgen's prior written consent, in each case, such consent not to be unreasonably withheld.

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4.3.2 Amgen Enforcement.

(a) If Company elects not to take good faith steps to enforce any patent within the Licensed Patents described in Section4.3.1 (Company Enforcement) with respect to an Infringement (or otherwise take good faith steps to resolve such Infringement) in a particular country within [*] of receiving notice that an Infringement exists in such country (provided the foregoing shall not limit Amgen's right to pursue equitable relief at any time in any court of competent jurisdiction in order to protect its rights in the Licensed Patents), then it shall so notify Amgen in writing, and upon receiving such notice, then Amgen may, in its sole judgment and at its own expense, take steps to enforce any such patent, including instituting suit against any such infringer or alleged infringer, and control, defend and settle such suit in a manner consistent with the terms and provisions hereof, and recover any damages, awards or settlements resulting therefrom, subject to Section 4.5 (Recovery). Company shall reasonably cooperate in any such litigation at Amgen's expense; where necessary, Company shall join in, or be named as a necessary party to, such litigation. Amgen shall not enter into any settlement of any claim described in this Section 4.3.2(a) that admits to the invalidity or unenforceability of the Licensed Patents, incurs any financial liability on the part of Company or requires an admission of liability, wrongdoing or fault on the part of Company without Company's prior written consent, in each case, such consent not to be unreasonably withheld.

(b) As between the Parties, Amgen (or its designee) shall have the sole right to enforce any patent within the Licensed Patents against any Infringement or alleged Infringement thereof asserted and occurring solely in Japan. Company shall reasonably cooperate in any such litigation at Amgen's (or its designee's) expense, including, where necessary, Company shall join in, or be named as a necessary party to, such litigation. Except for the cooperation obligations expressly set forth in this Section 4.3.2(b), Company shall not have any obligation to enforce any patent within the Licensed Patents in Japan. With respect to an Infringement or alleged Infringement of the Licensed Patents by a party that occurs both inside and outside the Territory, the Parties will meet and confer to mutually agree on a plan for enforcement (including how expenses will be shared), and each Party will reasonably cooperate in any such litigation.

4.3.3 Progress Reports; Participation. The Party initiating or defending any enforcement action described in this Section 4.3 (Enforcement) (the "**Enforcing Party**") shall keep the other Party reasonably informed of the progress of any such enforcement action, and such other Party shall have the individual right to participate with counsel of its own choice at its own expense. The selection of such counsel will be subject to the Enforcing Party's approval (which shall not be unreasonably withheld).

Section 4.4 Defense of Third Party Claims.

4.4.1 If either (a) Product Exploited by or under authority of Company becomes the subject of a Third Party's claim or assertion of Infringement of a patent relating to the manufacture, use, sale, offer for sale or importation of the Product in the Field in the Territory, or (b) a declaratory judgment action is brought naming either Party as a defendant and alleging invalidity or unenforceability of any of the Licensed Patents (other than in Japan), the Party first having notice of the claim or assertion shall promptly notify the other Party, and the Parties shall

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promptly confer to consider the claim or assertion and the appropriate course of action. Unless the Parties otherwise agree in writing, each Party shall have the right to defend itself against a suit that names it as a defendant (the "**Defending Party**"). Neither Party shall enter into any settlement of any claim described in this Section 4.4.1 that admits to the invalidity or unenforceability of the Licensed Patents, incurs any financial liability on the part of the other Party, requires an admission of liability, wrongdoing or fault on the part of the other Party or, in the case that Company is the settling Party, in Amgen's reasonable determination, conflicts with Amgen's obligations under the Japan Agreement, without such other Party's prior written consent, in each case, such consent not to be unreasonably withheld. In any event, the other Party shall reasonably assist the Defending Party and cooperate in any such litigation at the Defending Party's request and expense.

4.4.2 If either (a) the Product becomes the subject of a Third Party's claim or assertion of Infringement of a patent relating to the manufacture, use, sale, offer for sale or importation of the Product in Japan or (b) a declaratory judgment action is brought naming Amgen or Japan Licensee as a defendant and alleging invalidity or unenforceability of any of the Licensed Patents in Japan, Company shall reasonably assist Amgen or Japan Licensee, as applicable, and cooperate in any such litigation at Amgen's or Japan Licensee's, as applicable, request and expense.

Section 4.5 Recovery. Except as otherwise provided, the costs and expenses of the Party bringing suit under Section 4.3 (Enforcement) shall be borne by such Party, and any damages, settlements or other monetary awards recovered shall be shared as follows: (i) the amount of such recovery actually received by the Party controlling such action shall first be applied to the out-of-pocket costs of each Party in connection with such action; and then (ii) the remainder of the recovery shall be shared between the Parties as follows:

(a) If Company is the Enforcing Party, as if such recovery were Net Sales under this Agreement and Company shall pay to Amgen a portion of such Net Sales equal to the royalties calculated and payable with respect to the applicable Product under Section 3.4 (Royalties); and

(b) If Amgen is the Enforcing Party, [*] to Amgen, and [*] to Company.

Section 4.6 Patent Term Extensions and Filings for Regulatory Exclusivity Periods. Company shall advise Amgen in advance when it is considering any patent term extension or supplementary protection certificates or their equivalents for the Licensed Patents. Upon Amgen's request, Company shall provide reasonable cooperation and assistance to Amgen (and/or its licensees) with respect to the preparation and filing of any patent term extension or supplementary protection certificates or their equivalents for the Product in Japan, With respect to any patent listings required for any Regulatory Exclusivity for the Product in the Territory, the Parties shall mutually agree on which Licensed Patents to list.

Section 4.7 Patent Marking. Company shall mark, and shall cause all other Selling Parties to mark, Product with all Licensed Patents in accordance with applicable Law, which marking obligation shall continue for as long as (and only for as long as) required under applicable Law.

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ARTICLE 5 OBLIGATIONS OF THE PARTIES

Section 5.1 Responsibility. Following the Closing Date and at all times during the Term (except as expressly stated otherwise herein), Company shall be responsible for, and shall bear all costs associated with, the research, development and commercialization of the Product in the Territory, including regulatory, pharmacovigilance, manufacturing, distribution, marketing and sales activities. Subject to Company's obligations hereunder, all decisions concerning the development, marketing and sales of Product in the Territory, including the clinical and regulatory strategy, design, sale, price and promotion of Product covered under this Agreement, shall be within the sole discretion of Company,

Section 5.2 Diligence. Company shall (directly and/or through one or more Affiliates and/or Sublicensees or subcontractors) use Commercially Reasonable Efforts to develop and commercialize the Product in the Territory, [*]. The foregoing shall include use of Commercially Reasonable Efforts (directly and/or through one or more Affiliates and/or Sublicensees) with respect to [*]. In addition to the obligations of Company to use Commercially Reasonably Efforts, if Company, its Affiliates and/or their respective Sublicensees have not [*], Company shall promptly (but in no event later than [*] after each such applicable date) notify Amgen in writing of such failure to achieve such event (a "**Specified Diligence Failure**") in a timely manner (the "**Diligence Notice**"); *provided* that, (i) if [*] requires [*], then the deadline above shall be equitably extended to account for the [*] to comply with such deadline, and (ii) if Company either (A) fails to timely [*] despite its good faith efforts to do so or (B) has a Specified Diligence Failure as a result of [*] as required under [*], then the deadline shall be equitably extended to account for [*] to comply with such deadline (*provided*, in the case of a failure under clause (ii)(A), such equitable extension shall [*]). Company will notify Amgen if an equitable extension pursuant to clause (ii) above is necessary, and will provide Amgen with a good faith, non-binding estimate of the expected duration of such extension. Notwithstanding anything to the contrary, Amgen shall have the right to terminate this Agreement for a Specified Diligence Failure by providing [*] written notice to Company, *provided* such Specific Diligence Failure is not cured during such notice period. Company shall notify Amgen immediately upon obtaining Marketing Approval of the Product in each country.

Section 5.3 Reports. On January 15 and July 15 of each year (or, on a quarterly basis if required by the Japan Licensee under the Japan Agreement), Company shall submit to Amgen a report summarizing, in reasonable detail, activities related to the Exploitation of the Product that Company or any of its Affiliates has performed, or caused to be performed, during the preceding six (6)-month period, and future activities related to the Exploitation of Product it then-currently expects to initiate during the following six (6)-month period.

Section 5.4 Product Supply.

5.4.1 On the Closing Date, the Parties shall enter into (a) the Supply Agreement, pursuant to which Amgen shall provide to Company two (2) lots of the Product drug product (each, a "**Product Lot**") (*provided* that the second Product Lot shall only be deliverable by Amgen to the extent it meets all related quality requirements under the Supply Agreement), and (b) the Quality Agreement, with respect to such supply of the Product Lots. Except for the

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Licensed Materials listed on the Licensed Materials Schedule and such Product Lots delivered to Company, Company shall be responsible for, and shall bear the cost of, obtaining (whether by manufacturing or causing to be manufactured) research, clinical and commercial supplies of the Product. Notwithstanding anything to the contrary hereunder, as promptly as practicable after the Closing Date, Amgen will transfer the IND for the Product in the United States and Canada to Company, at Amgen's sole cost and expense.

5.4.2 Without limiting the foregoing, Company, itself or through a Permitted CMO, shall supply to Japan Licensee clinical and commercial supplies of the Product for use, importation or sale in Japan, pursuant to the terms attached as the Clinical Supply Schedule to the Japan Agreement (with respect to clinical supply) or a supply agreement separately entered into between Company and Japan Licensee (with respect to commercial supply, but solely to the extent described in the third or fourth sentences of Section 7.3 of the Japan Agreement). Notwithstanding anything in Section 2.1 (Grant) to the contrary, Amgen hereby grants to Company all necessary rights and licenses to allow Company to comply with Company's obligations under this Section 5.4.2.

5.4.3 Company, at the request of Amgen, shall enter into good faith negotiations with Japan Licensee for the purpose of establishing a supply agreement, quality agreement and safety agreement with respect to the Product. Under such safety agreement, Company shall (a) designate a safety liaison for communicating with Japan Licensee regarding adverse events with respect to the Product and (b) coordinate with Japan Licensee regarding any issues that may give rise to a recall.

Section 5.5 Pre-Existing Agreements. Promptly after the Closing Date, Amgen shall assign the Pre-Existing Agreements to Company (or, in the case of [*], shall [*]), to the extent it has the right under such agreement(s) to do so (and will use commercially reasonable efforts to obtain any required consents). Until the effective date of such assignment or sublicense, as applicable, (a) Company agrees to perform, or assist Amgen in performing, Amgen's obligations (and, in the case of [*], Company agrees to [*]) under such agreement, and (b) Amgen agrees to use reasonable efforts to provide Company with any rights Amgen receives under such agreement and sublicense, as applicable.

Section 5.6 Company Location. Within sixty (60) days following the Closing Date, Company, Nina Biosciences, Inc. or Santa Maria Biosciences, Inc. (either alone or together) shall establish facilities in or around Thousand Oaks, California (the "**Thousand Oaks Facilities**"). At least one of Company, Nina Biosciences, Inc., or Santa Maria Biosciences, Inc. shall be obligated to maintain such Thousand Oaks Facilities until the earliest of (a) two (2) years following the date of such establishment, (b) the end of the Term or (c) a Sale Transaction of Company. Promptly after the Closing Date, Amgen and Company shall work together to mutually identify appropriate personnel candidates to develop and commercialize the Product in the Territory. Company shall use commercially reasonable efforts to hire and retain such candidates.

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ARTICLE 6 EX-TERRITORY ACTIVITIES

Section 6.1 Rights to the Product in Jam. Except as expressly set forth herein, the Parties acknowledge that no rights are granted hereunder to Company with respect to the Product in Japan, and that Company will have no authority or obligations with respect to the research, development, manufacture or commercialization of the Product in Japan. As between the Parties, Amgen or its licensees will have the sole right to research, develop, manufacture and commercialize the Product in Japan. Company hereby acknowledges that Amgen has previously licensed rights for the Product in Japan to Japan Licensee under the Japan Agreement. Company acknowledges that it has received and reviewed a redacted copy of the Japan Agreement.

Section 6.2 Obligations under Japan Agreement.

(a) Without limitation of Company's obligations under Section 5.4 (Product Supply), Company agrees to perform (or assist Amgen in performing) Amgen's obligations to Japan Licensee under the Japan Agreement, solely to the extent [*]; *provided* that (i) Company shall have no obligation to perform any activities which it is not permitted to perform hereunder (or for which Amgen has not granted Company the requisite rights or authority to perform), (ii) Company shall have no obligation or right to [*] under Article [*] of the Japan Agreement except to the extent [*], and (iii) in the event [*] and [*], [*]. Company shall [*] for the purpose of [*] between Company and Japan Licensee as necessary to fulfill Company's obligations under this Section 6.2, including [*] with respect to [*] set forth in [*] of the Japan Agreement.

(b) Amgen agrees to provide Company with any relevant rights Amgen receives from Japan Licensee under the Japan Agreement (other than [*], including under [*] (but only to the extent [*], it being understood that [*]) of the Japan Agreement), to the extent [*], and Company agrees to assist Amgen in exercising such rights; *provided* that (i) Amgen [*] with respect to [*], including pursuant to [*]; (ii) Amgen [*] under [*] (provided that this reference to [*] shall not be deemed to [*] pursuant to Section [*] hereunder) of the Japan Agreement; (iii) the Parties shall cooperate with respect to the exercise of any right of Amgen (A) under Section [*] of the Japan Agreement or (B) to [*] under Section [*] of the Japan Agreement and the related rights under Sections [*] of the Japan Agreement (which cooperation shall include Amgen (1) [*] with respect to such exercise and (2) upon Company's reasonable request, [*] with respect to the [*] Section [*] of the Japan Agreement in accordance with the terms thereof); and (iv) in the event [*], Amgen shall [*] under Sections [*] of the Japan Agreement.

Section 6.3 License Grant and Right of Reference. To the extent Amgen is required under the Japan Agreement to [*], Company hereby grants Amgen a license [*] as necessary for Amgen to comply with its obligations under the Japan Agreement. To the extent Amgen is required under the Japan Agreement to [*], Company hereby grants to Amgen [*] right of access and reference [*], as necessary for Amgen to comply with its obligations under the Japan Agreement.

Section 6.4 Product Data; Regulatory. Without limiting Section 6.2 (Obligations under Japan Agreement), promptly upon reasonable request by Amgen from time to time, solely for the purpose of and to the extent necessary for Amgen to comply with its obligations under the Japan

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Agreement, Company shall provide (a) to Amgen and Japan Licensee [*], copies of all the Product Data then in Company's Control, for use in Japan, in reasonably usable electronic form and, if reasonably necessary or useful in connection with Japan Licensee's Exploitation of the Product in Japan, original hardcopies or duplicate copies thereof; (b) to Amgen and its designee copies of all Regulatory Filings and Marketing Approvals (and all underlying data) with respect to the Product held by or on behalf of Company; (c) to Amgen and its designee (or the relevant Governmental Authority, if such provision will satisfy such Governmental Authority's requirements) [*] and (d) reasonable cooperation to Amgen or its designee with respect to [*]. [*] shall be responsible for [*] and [*]. Notwithstanding anything to the contrary, Company shall only be obligated to provide (a)-(d) above [*] if such obligations [*]. Amgen shall [*] pursuant to fulfilling (a)-(d) above.

Section 6.5 Amendment of Japan Agreement. Any amendment to the Japan Agreement that alters Company's obligations herein shall be subject to Company's prior approval as follows: (i) prior to execution of any such amendment, Amgen shall provide Company with a copy of the proposed amendment and (ii) Company shall have [*] from receipt thereof to approve the proposed amendment, which approval shall not be unreasonably withheld or delayed.

ARTICLE 7 REPRESENTATIONS AND COVENANTS

Section 7.1 Mutual Warranties. Each of Amgen and Company represents and warrants that:

(a) it is duly organized and validly existing under the Law of the jurisdiction of its incorporation, and has full corporate power and authority to enter into this Agreement and to carry out the provisions hereof;

(b) it is duly authorized to execute and deliver this Agreement and to perform its obligations hereunder, and the individual executing this Agreement on its behalf has been duly authorized to do so by all requisite corporate action; and

(c) this Agreement is legally binding upon it and enforceable in accordance with its terms. The execution, delivery and performance of this Agreement by it does not conflict with any agreement, instrument or understanding, oral or written, to which it is a party or by which it may be bound, nor violate any material applicable Law.

Section 7.2 Additional Amgen Warranties. Amgen warrants to Company that:

(a) As of the Signing Date, Amgen Controls the Licensed Patents and the Licensed Know-How listed on the Licensed Know-How Schedule, and is entitled to grant the licenses specified herein. Amgen has not caused any Patent Right included in the Licensed Patents to be subject to any liens or encumbrances and Amgen has not granted to any Third Party any rights or licenses under such Patent Rights or Licensed Know-How that would conflict with the licenses granted to Company hereunder. None of the Licensed Patents are in-licensed by Amgen;

(b) As of the Signing Date, Amgen has no knowledge of any claim or litigation that has been brought or threatened in writing by any Third Party alleging that (i) the Licensed Patents are invalid or unenforceable or (ii) the manufacture, sale, offer for sale or importation of the Product in the Field in the Territory infringes or misappropriates any patents or other intellectual property rights of any Third Party;

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(c) As of the Signing Date, no patent application or registration within the Licensed Patents is the subject of any pending interference, opposition, cancellation or patent protest pursuant to 37 C.F.R. § 1.291;

(d) Amgen has made available to Company true and correct copies of the following: (i) all material Regulatory Filings for the Territory; (ii) all material correspondence with Governmental Authorities with respect to such Regulatory Filings; (iii) all minutes of any material meetings, telephone conferences or discussions with Governmental Authorities with respect to such Regulatory Filings; and (iv) all final clinical trial reports, in each case with respect to the Product and to the extent in existence as of the Signing Date;

(e) Until ownership of any Regulatory Filing is transferred to Company as set forth herein, Amgen is the owner of each such Regulatory Filing in the Field in the Territory;

(f) All the Product Lots provided to Company by Amgen pursuant to the Supply Agreement, as of the date each such Product Lot is provided to Company as set forth herein, have been manufactured, packaged, stored and labeled (as applicable) in accordance with cGMP and the specifications set forth in the Specifications Schedule;

(g) As of the Signing Date, the copy of the Japan Agreement and each Pre-Existing Agreement disclosed to Company prior to the Signing Date is, but for the redactions contained therein, a true and complete copy. Amgen further represents and warrants that Company will not be bound by any provision that is redacted from such copies of the Japan Agreement and/or any Pre-Existing Agreement;

(h) as of the Signing Date, [*], and (ii) [*]; and

(i) As of the Signing Date, Amgen has no knowledge that the manufacture of the Product using the Amgen Cell Line provided under this Agreement would infringe any patents of any Third Party.

Section 7.3 Disclaimer. EXCEPT AS OTHERWISE EXPRESSLY SET FORTH IN THIS ARTICLE 7 (REPRESENTATIONS), NEITHER PARTY MAKES ANY REPRESENTATIONS OR EXTENDS ANY WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY, QUALITY, FITNESS FOR A PARTICULAR PURPOSE, NONINFRINGEMENT, OR VALIDITY OF PATENT CLAIMS. NOTHING IN THIS AGREEMENT SHALL BE CONSTRUED AS A REPRESENTATION MADE OR WARRANTY GIVEN BY EITHER PARTY THAT EITHER PARTY WILL BE SUCCESSFUL IN OBTAINING ANY PATENT RIGHTS, OR THAT ANY PATENTS WILL ISSUE BASED ON A PENDING APPLICATION. WITHOUT LIMITING THE RESPECTIVE RIGHTS AND OBLIGATIONS OF THE PARTIES EXPRESSLY SET FORTH HEREIN, EACH PARTY SPECIFICALLY DISCLAIMS ANY GUARANTEE THAT THE PRODUCT WILL BE SUCCESSFUL, IN WHOLE OR IN PART.

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Section 7.4 Company Covenants. Company covenants to Amgen that:

(a) it will conduct, and will cause its Affiliates and contractors to conduct, all preclinical and clinical studies for Product and manufacturing of Product, in accordance with (i) all U.S. Laws and the Laws of the country in which such clinical studies are conducted, (ii) the known or published standards of the FDA and the Regulatory Authority in such country, and (iii) the scientific standards applicable to the conduct of such studies and activities in the United States and in such country including current good laboratory practice, current good clinical practice and current good manufacturing practice. Neither Company, nor any officer, employee or agent of Company, will make an untrue statement of a material fact to any Regulatory Authority with respect to Product (whether in any submission to such Regulatory Authority or otherwise), and none of the foregoing will knowingly fail to disclose a material fact required to be disclosed to any Regulatory Authority with respect to Product;

(b) it will, and will cause its Affiliates and contractors to, comply with all Law with respect to the commercialization of Product;

(c) it will not knowingly employ any personnel or knowingly use a contractor or consultant that has been debarred by the FDA (or subject to a similar sanction of any other Regulatory Authority), or that is subject of an FDA debarment investigation or proceeding (or similar proceeding of any other Regulatory Authority); and

(d) it shall comply with all (i) U.S. Laws prohibiting the re-export, directly or indirectly, of certain controlled U.S.-origin items without a license to parties located in certain countries or appearing on certain U.S. Government lists of restricted parties; (ii) U.S. Laws prohibiting participation in non-U.S. boycotts that the United States does not support; and (iii) U.S. Laws prohibiting the sale of products to parties from any country subject to U.S. economic sanctions or who are identified on related U.S. Government lists of restricted parties.

ARTICLE 8 INDEMNIFICATION

Section 8.1 Indemnity.

8.1.1 By Amgen. Amgen agrees to defend Company and its (and its Affiliates') directors, officers, employees and agents (the "**Company Indemnified Parties**") at Amgen's cost and expense, and will indemnify and hold Company and the other Company Indemnified Parties harmless from and against any claims, losses, costs, damages, fees or expenses (including legal fees and expenses) (collectively, "**Losses**") to the extent resulting from any Third Party claim (including product liability claims) arising out of or otherwise relating to (a) the gross negligence or willful misconduct of Amgen, (b) the material breach of this Agreement or the representations and warranties made hereunder by Amgen, (c) the Exploitation of the Product by or on behalf of Amgen (or the Exploitation of the Product by Japan Licensee), or (d) the death or injury of a person caused by the failure of the Product Lots delivered to Company hereunder to be manufactured in compliance with cGMP or the specifications set forth on the Specifications Schedule; except, in each case, to the extent such Losses result from clause (a), (b), or (c) of Section 8.1.2 (By Company). In the event of any such claim against the Company Indemnified

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Parties by a Third Party, the foregoing indemnity obligations shall be conditioned upon (x) Company promptly notifying Amgen in writing of the claim, (y) Company granting Amgen sole management and control, at Amgen's sole expense, of the defense of the claim and/or its settlement (*provided* that Amgen shall not settle any such claim without the prior written consent of Company if such settlement does not include a complete release from liability or if such settlement would involve undertaking an obligation (including the payment of money by a Company Indemnified Party), would bind or impair a Company Indemnified Party, or includes any admission of wrongdoing or that any intellectual property or proprietary right of Company is invalid or unenforceable), and (z) at Amgen's expense, the Company Indemnified Parties cooperating with Amgen; *provided* that in the case of (x) and (z) any failure or delay in such notice or cooperation shall not excuse any obligations of Amgen except to the extent Amgen is actually prejudiced thereby, The Company Indemnified Parties may, at their option and expense, be represented in any such action or proceeding by counsel of their own choosing.

8.1.2 By Company. Company agrees to defend Amgen and its (and its Affiliates') directors, officers, employees and agents (the "**Amgen Indemnified Parties**") at Company's cost and expense, and will indemnify and hold Amgen and the other Amgen Indemnified Parties harmless from and against any Losses resulting from any Third Party claim (including product liability claims) to the extent arising out of or otherwise relating to (a) the gross negligence or willful misconduct of Company, its Affiliates, or their respective Sublicensees, (b) the material breach of this Agreement or the representations, warranties and covenants made hereunder by Company, or (c) the Exploitation of the Product by or on behalf of Company, its Affiliates, or their respective Sublicensees (including from product liability and intellectual property infringement claims); except, in each case, to the extent such Losses result from clause (a), (b), (c) or (d) of Section 8.1.1 (By Amgen), In the event of any such claim against the Amgen Indemnified Parties by a Third Party, the foregoing indemnity obligations shall be conditioned upon (x) Amgen promptly notifying Company in writing of the claim, (y) Amgen granting Company sole management and control, at Company's sole expense, of the defense of the claim and/or its settlement (*provided* that Company shall not settle any such claim without the prior written consent of Amgen if such settlement does not include a complete release from liability or if such settlement would involve undertaking an obligation (including the payment of money by an Amgen Indemnified Party), would bind or impair an Amgen Indemnified Party, or includes any admission of wrongdoing or that any intellectual property or proprietary right of Amgen is invalid or unenforceable) and (z) at Company's expense, the Amgen Indemnified Parties cooperating with Company; *provided* that in the case of (x) and (z) any failure or delay in such notice or cooperation shall not excuse any obligations of Company except to the extent Company is actually prejudiced thereby. The Amgen Indemnified Parties may, at their option and expense, be represented in any such action or proceeding by counsel of their own choosing.

Section 8.2 LIMITATION OF DAMAGES. IN NO EVENT SHALL EITHER PARTY BE LIABLE HEREUNDER TO THE OTHER PARTY FOR ANY PUNITIVE, RELIANCE, INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING LOST REVENUE, LOST PROFITS, OR LOST SAVINGS) HOWEVER CAUSED AND UNDER ANY THEORY, EVEN IF IT HAS NOTICE OF THE POSSIBILITY OF SUCH DAMAGES. THE LIMITATIONS SET FORTH IN THIS SECTION 8.2 (LIMITATION OF DAMAGES) SHALL NOT APPLY WITH RESPECT TO (A) ANY BREACH OF ARTICLE 9

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(CONFIDENTIALITY) OR (B) THE INTENTIONAL MISCONDUCT OF A PARTY. NOTHING IN THIS SECTION 8.2 (LIMITATION OF DAMAGES) IS INTENDED TO LIMIT OR RESTRICT THE INDEMNIFICATION RIGHTS OR OBLIGATIONS OF A PARTY UNDER THIS ARTICLE 8 (INDEMNIFICATION) WITH RESPECT TO ANY DAMAGES PAID BY THE OTHER PARTY TO A THIRD PARTY IN CONNECTION WITH A THIRD-PARTY CLAIM.

Section 8.3 Insurance. At least [*] prior to [*], Company shall at its own expense procure and maintain during the Term (and for [*] thereafter) [*] insurance coverage adequate to cover its obligations hereunder and which is/are consistent with normal business practices of prudent pharmaceutical companies. Additionally, at least [*] prior to [*], Company shall at its own expense procure and maintain during the Term (and for [*] thereafter) [*] insurance coverage adequate to cover its obligations hereunder and which is consistent with normal business practices of prudent pharmaceutical companies. Each insurance policy required by and procured by Company under this Section 8.3 (Insurance) shall [*]. Such insurance shall not be construed to create a limit of Company's liability with respect to its indemnification obligations under this Article 8 (Indemnification). Company shall provide Amgen with a certificate of insurance or other evidence of such insurance, upon request. Company shall provide Amgen with written notice at least [*] prior to the cancellation, non-renewal or a material change of or in such insurance which materially adversely affects the rights of Amgen hereunder, and [*] prior written notice of cancellation for non-payment of premiums. Company's insurance hereunder shall be primary with respect to the obligations for which Company is liable hereunder.

ARTICLE 9 CONFIDENTIALITY

Section 9.1 Confidential Information.

9.1.1 Confidential Information. Each Party ("**Disclosing Party**") may disclose to the other Party ("**Receiving Party**"), and Receiving Party may acquire during the course and conduct of activities under this Agreement, certain proprietary or confidential information of Disclosing Party in connection with this Agreement. The term "**Confidential Information**" means (a) all Licensed Know-How, (b) all Licensed Materials, and (c) all ideas and information of any kind, whether in written, oral, graphical, machine-readable or other form, whether or not marked as confidential or proprietary, which are transferred, disclosed or made available by Disclosing Party or at the request of Receiving Party. During the Term, Amgen shall keep completely confidential all Licensed Know-How and Licensed Materials to the extent disclosure of such Confidential Information would negatively impact in any material way the Exploitation of the Product in the Territory by Company or its Affiliates or Sublicensees. For clarity, any modifications, improvements, enhancements, derivatives, or extracts of or related to the Licensed Know-How and Licensed Materials conceived or reduced to practice by or on behalf of Company, its Affiliates, or Sublicensees shall be considered Company's Confidential Information.

9.1.2 Restrictions. During the Term and for [*] thereafter, Receiving Party shall keep completely confidential all Disclosing Party's Confidential Information. Receiving Party shall not use Disclosing Party's Confidential Information except to the extent necessary to perform its

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obligations and exercise its rights under this Agreement [*]. Receiving Party has the right to disclose Disclosing Party's Confidential Information without Disclosing Party's prior written consent, to the extent and only to the extent reasonably necessary, to Receiving Party's Affiliates and their employees, subcontractors, consultants or agents who have a need to know such Confidential Information in order to perform its obligations and exercise its rights under this Agreement and who are required to comply with the restrictions on use and disclosure in this Section 9.1.2 (Restrictions). Receiving Party shall use diligent efforts to cause those entities and persons to comply with the restrictions on use and disclosure in this Section 9.1,2 (Restrictions). Receiving Party assumes responsibility for those entities and persons maintaining Disclosing Party's Confidential Information in confidence and using same only for the purposes described herein.

9.1.3 Exceptions. Receiving Party's obligation of nondisclosure and the limitations upon the right to use the Disclosing Party's Confidential Information shall not apply to the extent that Receiving Party can demonstrate that the Disclosing Party's Confidential Information: (a) was known to Receiving Party or any of its Affiliates prior to the time of disclosure, as evidenced by contemporaneous written records; (b) is or becomes public knowledge through no fault or omission of Receiving Party or any of its Affiliates; (c) is obtained by Receiving Party or any of its Affiliates from a Third Party under no obligation of confidentiality to Disclosing Party; or (d) has been independently developed by employees, subcontractors, consultants or agents of Receiving Party or any of its Affiliates without the aid, application or use of Disclosing Party's Confidential Information, as evidenced by contemporaneous written records.

9.1.4 Permitted Disclosures. Receiving Party may disclose Disclosing Party's Confidential Information to the extent (and only to the extent) such disclosure is reasonably necessary in the following instances:

(a) in order to comply with applicable law (including any securities law or regulation or the rules of a securities exchange) or with a legal or administrative proceeding;

(b) in connection with prosecuting or defending litigation, Marketing Approvals and other regulatory filings and communications, and filing, prosecuting and enforcing Patents in connection with Receiving Party's rights and obligations pursuant to this Agreement; and

(c) in connection with exercising its rights hereunder, to its Affiliates; potential and future collaborators (including Sublicensees where Company is the Receiving Party); permitted and potential acquirers or assignees; potential investment bankers, investors and lenders; and, where Amgen is the Receiving Party, Japan Licensee;

provided that (1) with respect to the foregoing clause (a) or (b), where reasonably possible, Receiving Party shall notify Disclosing Party of Receiving Party's intent to make any disclosure pursuant thereto sufficiently prior to making such disclosure so as to allow Disclosing Party adequate time to take whatever action it may deem appropriate to protect the confidentiality of the information to be disclosed, and (2) with respect to the foregoing clause (c), each of those named people and entities are required to comply with the restrictions on use and disclosure in Section 9.1.2 (Restrictions) (other than investment bankers, investors and lenders, which must be bound prior to disclosure by commercially reasonable obligations of confidentiality).

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Section 9.2 Terms of this Agreement; Publicity.

9.2.1 Restrictions. The Parties agree that the terms of this Agreement shall be treated as Confidential Information of both Parties, and thus may be disclosed only as permitted by Section 9.1.4 (Permitted Disclosures). Except as required by law and except for the press release attached hereto as the Press Release Schedule to be issued on or after the Closing Date, each Party agrees not to issue any press release or public statement disclosing information relating to this Agreement or the Product in the Territory or the transactions contemplated hereby or the terms hereof without the prior written consent of the other Party not to be unreasonably withheld (or as such consent may be obtained in accordance with Section 9.2.2 (Review)).

9.2.2 Review. In the event either Party (the "**Issuing Party**") desires to issue a press release or other public statement disclosing information relating to this Agreement or the transactions contemplated hereby or the terms hereof, the Issuing Party shall provide the other Party (the "**Reviewing Party**") with a copy of the proposed press release or public statement (the "**Release**"). The Issuing Party shall specify with each such Release, taking into account the urgency of the matter being disclosed, a reasonable period of time within which the Receiving Party may provide any comments on such Release (but in no event less than [*] business days) and if the Receiving Party fails to provide any comments during the response period called for by the Issuing Party, the Reviewing Party shall be deemed to have consented to the issuance of such Release. If the Receiving Party provides any comments, the Parties shall consult on such Release and work in good faith to prepare a mutually acceptable Release. Either Party may subsequently publicly disclose any information previously contained in any Release so consented to. For the avoidance of doubt, notwithstanding anything to the contrary, Company, in its sole discretion, may (a) subject to the terms of Section 9.1 (Confidential Information), disclose information relating to Company's, its Affiliates', and Sublicensees' activities in connection with the subject matter hereunder, including information relating to research and any clinical trial conducted by Company (including in marketing or publicity materials) and any health or safety matter related to the Product and (b) disclose information relating to this Agreement or the transactions contemplated hereby to current and potential investors in and potential acquirers and Sublicensees of Company who are bound prior to disclosure by commercially reasonable obligations of confidentiality.

Section 9.3 Relationship to the Confidentiality Agreement. All "Confidential Information" disclosed or received by or on behalf of a Party under that certain Confidential Disclosure Agreement between Amgen and Kleiner Perkins Caufield & Byers, dated October 17, 2011, shall be deemed "Confidential Information" hereunder and shall be subject to the terms and conditions of this Agreement.

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Section 9.4 Publications.

9.4.1 Right to Publish.

(a) Subject to the provisions of Sections 9.1 (Confidential Information), 9.2 (Terms of this Agreement; Publicity) and 9.4.2 (Review), both Parties shall have the right to publish with respect to the Product in publications based in the Territory, and to make scientific presentations on the Product in the Territory (*provided* that prior to any such publication or presentation by Amgen with respect to the Product in the Territory, Amgen shall obtain Company's prior written consent). Neither Party shall publish the [*] or information concerning the [*] without the prior consent of the other Party.

(b) As between the Parties, Amgen shall have the sole right to publish with respect to the Product in publications based outside the Territory and to make scientific presentations on the Product outside the Territory. Upon Amgen's request, Company shall meet with Japan Licensee to formulate a global publication strategy for the Product in good faith. In addition, (i) Company shall not present or publish in the Territory data generated outside the Territory by or on behalf of Amgen's licensee or Amgen without Amgen's prior written consent and (ii) Amgen shall not present or publish outside the Territory data generated inside the Territory by or on behalf of Company or its Sublicensees without Company's prior written consent.

9.4.2 Review. Except as required by Law or court order, for any proposed publication or presentation regarding the Product in the Territory, the Party desiring to make such publication: (a) shall transmit a copy of the proposed publication for review and comment to the other Party and any applicable licensee) at least [*] days prior to the submission of such publication to a Third Party; (b) shall postpone such publication for up to an additional [*] days upon request of a Party (or applicable licensee) to allow the consideration of appropriate patent applications or other protection to be filed; (c) upon request of the other Party (or applicable licensee) shall remove all Confidential Information of the other Party (or applicable licensee); and (d) shall consider all reasonable comments made by the other Party (or applicable licensee).

ARTICLE 10 TERM AND TERMINATION

Section 10.1 Term. The term of this Agreement (the "**Term**") shall commence on the Signing Date, and unless terminated earlier as provided in this Article 10 (Term and Termination), shall continue in full force and effect until expiration of the last-to-expire Royalty Term for the Product in the Territory. Upon expiration of this Agreement, the licenses granted to Company by Amgen under this Agreement to Exploit the Product shall be fully paid-up, royalty-free, irrevocable and non-exclusive.

Section 10.2 Termination by Amgen.

10.2.1 Breach.

(a) Subject to Section 10.2.1(b), Amgen shall have the right to terminate this Agreement in full upon delivery of written notice to Company in the event of any material breach by Company of any terms and conditions of this Agreement; *provided* that such termination shall not be effective if such breach has been cured within [*] after written notice thereof is given by Amgen to Company specifying the nature of the alleged breach.

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(b) Notwithstanding the foregoing, in the event of a good faith dispute between the Parties as to whether Company has materially breached any terms or conditions of this Agreement (a "**Dispute**"), then, except [*], (i) the Parties shall resolve the Dispute pursuant to Section 11.4 (Governing Law; Jurisdiction) (the period until the resolution of such Dispute being the "**Dispute Period**"); (ii) each Party will continue to perform its obligations under this Agreement during the Dispute Period and (iii) if the relevant judicial finder of fact ("**Finder of Fact**") determines that Company is in material breach as asserted by Amgen (a "**Breach**"), then, following such adjudication by the Finder of Fact and in lieu of any such termination by Amgen, Company shall have the right to cure (A) any payment breach by payment in full of any finally determined monetary award and (B) any other breach that [*]. For avoidance of doubt, this Section 10.2.1 shall not abrogate Amgen's right to obtain injunctive or equitable relief at any time from a court of competent jurisdiction and/or attorneys' fees in connection with any relief so granted.

10.2.2 Termination for IP Challenge. To the extent allowed by Law, Amgen shall have the right, upon written notice to Company, to terminate in full (a) this Agreement, in the event that Company or any of its Affiliates directly challenges in a legal or administrative proceeding the patentability, enforceability or validity of any Licensed Patents or Framework Patents, or (b) any Sublicensee's sublicense, in the event that such Sublicensee directly challenges in a legal or administrative proceeding the patentability, enforceability or validity of any Licensed Patents; *provided* that Amgen shall not have the right to terminate any sublicense under Section 10.2.2 (b) (Termination for IP Challenge) for any such challenge by any Sublicensee if such challenge is dismissed within [*] days of Amgen's notice to Company under this Section 10.2.2 (Termination for IP Challenge) and not thereafter continued.

Section 10.3 Termination by Company.

10.3.1 Breach. Company shall have the right to terminate this Agreement in full upon delivery of written notice to Amgen in the event of any material breach by Amgen of any terms and conditions of this Agreement; *provided* that such termination shall not be effective if such breach has been cured within [*] days after written notice thereof is given by Company to Amgen specifying the nature of the alleged breach.

10.3.2 Discretionary Termination. Company shall have the right to terminate this Agreement in full [*] days after delivery of written notice to Amgen if the Board of Directors of Company concludes due to scientific, technical, regulatory or commercial reasons, including (a) safety or efficacy concerns, including adverse events of the Product, (b) concerns relating to the present or future marketability or profitability of the Product, (c) reasons related to patent coverage or (d) existing and anticipated competition, renders the Exploitation of the Product no longer commercially practicable for Company.

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Section 10.4 Termination Upon Bankruptcy. Either Party may terminate this Agreement if, at any time, the other Party shall (a) file in any court or agency pursuant to any statute or regulation of any state, country or jurisdiction, a petition in bankruptcy or insolvency or for reorganization or for an arrangement or for the appointment of a receiver or trustee of that Party or of its assets, (b) propose a written agreement of composition or extension of its debts, (c) be served with an involuntary petition against it, filed in any insolvency proceeding, and such petition has not been dismissed within [*] days after the filing thereof, (d) propose or be a party to any dissolution or liquidation, (e) make an assignment for the benefit of its creditors or (f) admit in writing its inability generally to meet its obligations as they fall due in the general course.

Section 10.5 Effects of Termination. Upon termination by either Party under Sections 10.2 (Termination by Amgen), 10.3 (Termination by Company) or 10.4 (Termination Upon Bankruptcy):

(a) Company shall responsibly wind-down, in accordance with accepted pharmaceutical industry norms and ethical practices, any on-going clinical studies for the Product for which it has responsibility hereunder in which patient dosing has commenced or, if reasonably practicable and requested by Amgen, Company, its Affiliates or its Sublicensees shall complete such trials. Company shall be responsible for any costs associated with such wind-down. Amgen shall pay all costs incurred by either Party to complete such studies should Amgen request that such studies be completed.

(b) A termination of this Agreement shall [*] with respect to the Product pursuant to Section [*]; *provided* that, with respect to [*], as of the effective date of termination and [*] consistent with the terms and conditions contained herein, with [*], or [*], Company may, to the extent it is legally permitted to do so, [*] and [*] and [*] and [*].

(c) All rights and licenses granted by Amgen to Company in Article 2 (License Grant) with respect to the Product shall terminate, and Company and its Affiliates shall cease all use of Licensed Know-How and Licensed Patents related to the Product and all Exploitation of the Product, except to the extent required under Section 10.5(a).

(d) Upon Amgen's request, all Marketing Approvals and other regulatory filings and communications relating to the Product owned (in whole or in part) or otherwise controlled by Company and its Affiliates and Sublicensees, and all other documents relating to or necessary to further Exploit any Product, as such items exist as of the effective date of such termination (including all related completed and ongoing clinical studies) shall be assigned to Amgen, and Company shall provide to Amgen one (1) copy of the foregoing and all documents contained in or referenced in any such items, together with the raw and summarized data for any clinical studies (and where reasonably available, electronic copies thereof). In the event of any failure to obtain assignment, Company hereby consents and grants to Amgen the right to access and reference (without any further action required on the part of Company, whose authorization to file this consent with any Regulatory Authority is hereby granted) any such item.

(e) Company hereby grants to Amgen and its Affiliates, and Amgen and its Affiliates shall automatically have, a [*] license, [*], under Know-How and Patent Rights that are Controlled by Company or any of its Affiliates and Sublicensees for Exploiting the Product and any improvement to any of the foregoing (such license effective only as of and after the effective date of such termination). The Patent Rights so licensed shall be subject to [*].

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(f) Upon Amgen's request, Company shall assign (or, if applicable, shall cause its Affiliates or Sublicensees to assign) to Amgen all of Company's (and such Affiliates' and Sublicensees') right, title and interest in and to any registered or unregistered trademarks or internet domain names worldwide that are specific to a Product (it being understood that the foregoing shall not include any trademarks or internet domain names that contain the corporate or business name(s) of Company).

(g) Company agrees (and shall cause its Affiliates and Sublicensees as a condition of the grant of the applicable Sublicense to so agree) to fully cooperate with Amgen and its designee(s) to facilitate a smooth, orderly and prompt transition of the Exploitation of Product in the Territory to Amgen and/or its designee(s). Upon request by Amgen, and at Amgen's expense, Company shall transfer to Amgen some or all quantities of the Product in its possession. If Company is, at the time of such termination of this Agreement, party to any Third Party contracts with respect to the Product, then it shall provide Amgen notice and (to the extent permitted to do so) copies thereof. Company shall assign to Amgen (and Amgen shall assume and perform) any such contracts requested by Amgen, to the extent it has the right under such contract(s) to do so (and shall use commercially reasonable efforts to obtain any required consents). In addition, Company shall, at Amgen's cost and expense, provide any cooperation reasonably requested by Amgen to ensure uninterrupted supply of the Product, If Company manufactured the Product at the time of termination, then Company shall continue to provide for manufacturing of such Product for Amgen, at [*] of the fully-burdened manufacturing cost therefor (for clarity, such cost will be paid by Amgen to Company), from the date of notice of such termination until the sooner to occur of (a) such time as Amgen is able, using commercially reasonable efforts to do so, to secure an acceptable alternative commercial manufacturing source from which sufficient quantities of Product may be procured and legally sold in the Territory and (b) [*] from the effective date of termination of this Agreement.

Company shall duly execute and deliver, or caused to be duly executed and delivered, such instruments and shall do and cause to be done such activities and things, including the filings of such assignments, agreements, documents and instruments, as may be necessary under, or as Amgen may reasonably request in connection with, Amgen's rights under this Section 10.5 (Effects of Termination).

Section 10.6 Survival. In addition to the termination consequences set forth in Section 10.5 (Effects of Termination), the following provisions shall survive termination or expiration of this Agreement: Articles 1 (Definitions), 7 (Indemnification), 8 (Confidentiality), and 10 (Miscellaneous) and Sections 2.7 (Limited Exploitation Rights), 3.3 (Milestone Payments) (with respect to milestones reached prior to such expiration or termination), 3.4 (Royalties) (with respect to sales made before such expiration or termination), 3.5 (Product Sublicensing Income) through 3.10 (Taxes) (inclusive) (with respect to periods with sales of Products made before such expiration or termination), 4.3 (Enforcement) through 4.5 (Recovery) (with respect to any action initiated prior to such expiration or termination), 7.3 (Disclaimer), 10.5 (Effects of Termination) and this Section 10.6 (Survival). Termination or expiration of this Agreement shall not relieve

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the Parties of any liability or obligation which accrued hereunder prior to the effective date of such termination or expiration nor preclude either Party from pursuing all rights and remedies it may have hereunder or at law or in equity with respect to any breach of this Agreement nor prejudice either Party's right to obtain performance of any obligation. All other rights and obligations shall terminate upon expiration of this Agreement.

ARTICLE 11 MISCELLANEOUS

Section 11.1 Entire Agreement; Amendment. This Agreement and all Schedules attached to this Agreement constitute the entire agreement between the Parties as to the subject matter hereof. All prior and contemporaneous negotiations, representations, warranties, agreements, statements, promises and understandings with respect to the subject matter of this Agreement are superseded hereby. Neither Party shall be bound by or charged with any written or oral agreements, representations, warranties, statements, promises or understandings not specifically set forth in this Agreement. No amendment, supplement or other modification to any provision of this Agreement shall be binding unless in writing and signed by both Parties.

Section 11.2 Section 365(n) of the Bankruptcy Code. All rights and licenses granted under or pursuant to any section of this Agreement are, and shall otherwise be deemed to be, for purposes of Section 365(n) of the U.S. Bankruptcy Code, licenses of rights to "intellectual property" as defined under Section 101(35A) of the U.S. Bankruptcy Code to the extent permitted thereunder. The Parties shall retain and may fully exercise all of their respective rights and elections under the U.S. Bankruptcy Code or any analogous provisions in any other country or jurisdiction. Upon the commencement of a bankruptcy proceeding by or against either Party, the Party that is not a party to such proceeding shall further be entitled to a complete duplicate of (or complete access to, as appropriate) any such intellectual property and all embodiments of such intellectual property, which, if not already in the non-subject Party's possession, shall be promptly delivered to it, unless the Party subject to the proceeding elects to continue, and continues, to perform all of its obligations under this Agreement.

Section 11.3 Independent Contractors. The relationship between Company and Amgen created by this Agreement is solely that of independent contractors. This Agreement does not create any agency, distributorship, employee-employer, partnership, joint venture or similar business relationship between the Parties. Neither Party is a legal representative of the other Party, and neither Party can assume or create any obligation, representation, warranty or guarantee, express or implied, on behalf of the other Party for any purpose whatsoever. Each Party shall use its own discretion and shall have complete and authoritative control over its employees and the details of performing its obligations under this Agreement.

Section 11.4 Governing Law; Jurisdiction. This Agreement and its effect are subject to and shall be construed and enforced in accordance with the law of [*], without regard to its conflicts or choice of law rules or principles, except as to any issue which depends upon the validity, scope or enforceability of any Licensed Patent, which issue shall be determined in accordance with the laws of the country in which such patent was issued. Each of the Parties hereby irrevocably and unconditionally consents to submit to the exclusive jurisdiction of the courts of [*] for any matter arising out of or relating to this Agreement and the transactions contemplated

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hereby, and agrees not to commence any litigation relating thereto except in such courts. Each of the Parties hereby irrevocably and unconditionally waives any objection to the laying of venue of any matter arising out of this Agreement or the transactions contemplated hereby in the courts of [*] and hereby further irrevocably and unconditionally waives and agrees not to plead or claim in any such court that any such matter brought in any such court has been brought in an inconvenient forum. The Parties agree that a final judgment in any such matter shall be conclusive and may be enforced in other jurisdictions by suits on the judgment or in any other manner provided by law. Any proceeding brought by either Party under this Agreement shall be exclusively conducted in the English language.

Section 11.5 Notice. Except as otherwise expressly set forth herein, all notices or communication required or permitted to be given by either Party hereunder shall be deemed sufficiently given if mailed by registered mail or certified mail, return receipt requested, or sent by overnight courier, such as Federal Express, to the other Party at its respective address set forth below or to such other address as one Party shall give notice of to the other from time to time hereunder. Mailed notices shall be deemed to be received on the third (3rd) business day following the date of mailing. Notices sent by overnight courier shall be deemed received the following business day.

If to Company:	Pinta Biosciences, Inc. c/o Kleiner Perkins Caufield & Byers 2750 Sand Hill Road Menlo Park, CA 94025 Attn: Isaac Ciechanover, MD
If to Amgen:	Amgen Inc. One Amgen Center Drive Thousand Oaks, CA 91320 Attn: Corporate Secretary

Section 11.6 Compliance With Law; Severability. Nothing in this Agreement shall be construed to require the commission of any act contrary to Law. If any one or more provisions of this Agreement is held to be invalid, illegal or unenforceable, the affected provisions of this Agreement shall be curtailed and limited only to the extent necessary to bring it within the applicable legal requirements, and the validity, legality and enforceability of the remaining provisions of this Agreement shall not in any way be affected or impaired thereby.

Section 11.7 Non-Use of Names. Amgen shall not, and shall require its Affiliates not to, use the name, trademark, logo or physical likeness of Company or any of its officers, directors or employees, or any adaptation of any of them, in any advertising, promotional or sales literature, without such Company's prior written consent. Company shall not, and shall require its Affiliates not to, use the name, trademark, logo or physical likeness of Amgen or any of its officers, directors or employees, or any adaptation of any of them, in any advertising, promotional or sales literature, without Amgen's prior written consent.

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Section 11.8 Successors and Assigns. Neither this Agreement nor any of the rights or obligations created herein, except for the right to receive any remuneration hereunder, may be assigned by either Party, in whole or in part, without the prior written consent of the other Party, not to be unreasonably withheld or delayed except that either Party shall be free to assign this Agreement in connection with any merger, sale of such Party or sale of all or substantially all of the assets of the Party relating to this Agreement (a "**Sale Transaction**"), without the prior consent of the non-assigning Party; *provided* that, in the case of a Sale Transaction of Company, the assignee shall be required to assume all of Company's obligations hereunder. This Agreement shall bind and inure to the benefit of the successors and permitted assigns of the Parties hereto. Any assignment of this Agreement in contravention of this Section 11.8 (Successors and Assigns) shall be null and void.

Section 11.9 Sale Transaction or Amgen Acquisition. In the event of (x) a Sale Transaction, or (y) the acquisition by Amgen of all or substantially all of the business of a Third Party (together with any entities that were Affiliates of such Third Party immediately prior to such acquisition, an "**Amgen Acquiree**"), whether by merger, sale of stock, sale of assets or otherwise (an "**Amgen Acquisition**"), the intellectual property rights of the acquiring party in a Sale Transaction, if other than one of the Parties to this Agreement (together with any entities that were affiliates of such Third Party immediately prior to such Sale Transaction, a "**Third Party Acquirer**"), or the Amgen Acquiree, as applicable, shall not be included in the technology licensed hereunder or otherwise subject to this Agreement.

Section 11.10 Waivers. A Party's consent to or waiver, express or implied, of the other Party's breach of its obligations hereunder shall not be deemed to be or construed as a consent to or waiver of any other breach of the same or any other obligations of such breaching Party. A Party's failure to complain of any act, or failure to act, by the other Party, to declare the other Party in default, to insist upon the strict performance of any obligation or condition of this Agreement or to exercise any right or remedy consequent upon a breach thereof, no matter how long such failure continues, shall not constitute a waiver by such Party of its rights hereunder, of any such breach, or of any other obligation or condition. A Party's consent in any one instance shall not limit or waive the necessity to obtain such Party's consent in any future instance and in any event no consent or waiver shall be effective for any purpose hereunder unless such consent or waiver is in writing and signed by the Party granting such consent or waiver.

Section 11.11 No Third Party Beneficiaries. Except as expressly provided with respect to Amgen Indemnified Parties and Company Indemnified Parties in Article 8 (Indemnification) and Amgen's licensees, including Japan Licensee, nothing in this Agreement shall be construed as giving any Person, other than the Parties hereto and their successors and permitted assigns, any right, remedy or claim under or in respect of this Agreement or any provision hereof.

Section 11.12 Headings; Schedules. Article and Section headings used herein are for convenient reference only, and are not a part of this Agreement. All Schedules are incorporated herein by this reference.

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Section 11.13 Interpretation. Except where the context otherwise requires, wherever used, the singular shall include the plural and the plural the singular, the use of any gender shall be applicable to all genders and the word "or" is used in the inclusive sense (and/or). The term "including" as used herein shall mean including, without limiting the generality of any description preceding such term. All references to a "business day" or "business days" in this Agreement means any day other than a day which is a Saturday or Sunday or any day banks are authorized or required to be closed in the United States. The language in all parts of this Agreement shall be deemed to be the language mutually chosen by the Parties. The Parties and their counsel have cooperated in the drafting and preparation of this Agreement, and this Agreement therefore shall not be construed against any Party by virtue of its role as the drafter thereof.

Section 11.14 Counterparts. This Agreement may be executed in counterparts by a single Party, each of which when taken together shall constitute one and the same agreement, and may be executed through the use of facsimiles or electronically transmitted documents.

[Signature page follows]

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IN WITNESS WHEREOF, the Parties have executed this Agreement as of the date first set forth above.

PINTA BIOSCIENCES, INC.	AMGEN INC.
By: /s/ Isaac Ciechanover	By: /s/ Jonathan Peacock
Name: Isaac Ciechanover	Name: Jonathan Peacock
Title: President	Title: Executive Vice President and Chief Finance Officer

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Schedule

Quality Agreement

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QUALITY AGREEMENT

Between

[Name of Company]

Hereafter referred to as “COMPANY”

and

AMGEN Inc.

Hereafter referred to as “AMGEN”

This Quality Agreement is intended by the Parties to set forth a plan for the quality assurance groups of AMGEN and COMPANY to work in relation to the manufacture, labeling, testing, release, shipping and storage of the Product (as defined below). By signing below, the respective quality assurance representatives acknowledge and agree to the provisions of this Quality Agreement.

Agreed and accepted for:	**Agreed and accepted for:**
[NAME OF COMPANY]	**AMGEN**
By:	By:
Printed Name:	Printed Name:
Title:	Title:
Date:	Date:

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TABLE OF CONTENTS

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1. BACKGROUND INFORMATION

1.1 AMGEN Inc. (hereinafter referred to as "AMGEN") and [Company Name] (hereinafter referred to as "COMPANY") (hereinafter referred to individually as "Party" or collectively as "Patties") have entered into an Exclusive License Agreement (the "License Agreement"), dated as of [ ], 2012, and a Supply Agreement (the "Supply Agreement"), dated as of [ ], 2012, regarding AMG 745 (the "Product") for clinical use. This Quality Agreement provides the quality requirements as specified under Section 5.4 of the License Agreement and Section2.1 of the Supply Agreement.

1.1.1 This Quality Agreement defines the quality obligations of the Parties and their respective affiliates or approved contractors, with respect to the manufacture, labeling, testing, release, and delivery of Product in accordance with the License Agreement and Supply Agreement and the quality aspects of such Product.

2. SCOPE

2.1 The provisions of this Quality Agreement supplement the provisions of the License Agreement and Supply Agreement. The terms of the License Agreement and Supply Agreement shall remain in full force and effect. In the event of any conflict between the License Agreement, or Supply Agreement, and this Quality Agreement, the License Agreement and Supply Agreement shall govern over the conflict.

2.2 This Quality Agreement may be amended only by mutual written agreement of the Parties.

2.3 Exhibits to this Quality Agreement are intended to provide additional definition to the applicable topic and, as such, should be updated to reflect the current information and business process, as applicable. Amendment of the Exhibits does not require re-approval of the Quality Agreement unless the Quality Agreement itself is affected. Exhibits and all amendments of Exhibits shall be approved by mutual written agreement of the Parties.

2.4 All activities under this Quality Agreement shall be performed in compliance with cGMP regulations.

2.5 This Quality Agreement shall expire at the termination, cancellation, or expiration, as the case may be, of the License Agreement.

3. DEFINITIONS

3.1 All capitalized terms not otherwise defined in this Quality Agreement shall have the definition set forth in the License Agreement and/or Supply Agreement.

3.2 As used in this Quality Agreement, the following terms shall have the following meanings:

Certificate of Analysis (CoA)	CoA prepared for Product representing the analytical results for the material, the accuracy of which has been certified by AMGEN. This is an approved record provided by AMGEN for a given batch containing the analytical test results required by the specification for the material.
Certificate of Compliance (CoC)	CoC (or QADS) prepared by AMGEN for the Product representing that the Product was manufactured according to cGMP requirements.
Disposition Manager	AMGEN Quality Assurance staff member qualified to perform the comprehensive quality assessment and make the disposition decision for a specific batch of Product.
Disposition Package	Documentation set provided to COMPANY representing AMGEN batch disposition of the Product. Documents comprising the Disposition Package are provided in Exhibit B.
Drug Substance	Shall have the meaning given in the Supply Agreement.
Drug Product	The finished dosage form of AMG745 in labeled vials delivered in accordance with License Agreement and the Supply Agreement.
Final Release	Release of Product for distribution by COMPANY in accordance with COMPANY standard operating procedures (“SOPs”).
cGMP	All applicable laws and regulations relating to current Good Manufacturing Practices, as promulgated by the United States Food and Drug Administration (FDA), and foreign equivalents thereof as promulgated by the applicable Regulatory Authority in the European Union or Canada.
Disposition Package	Documentation set provided to COMPANY representing AMGEN batch disposition of the Product. Documents comprising the Disposition Package are provided in Exhibit B.
Manufacturer’s Release	Release of Product by AMGEN, according to AMGEN’s procedures and cGMP regulations.
Manufacturing Information Schedule	The information listed under the heading “Manufacturing Information” in the Licensed Know-How Schedule attached to the License Agreement.
Material Change	A material change to the Specifications or the manufacturing process for Product, or any other material changes to the Product including the analytical methods that AMGEN uses that support performance of its obligations under the License Agreement or Supply Agreement.
Nonconformance	Deviations incurred during the manufacture, testing, or storage of the Product prior to delivery to COMPANY, which were determined by AMGEN procedures to potentially impact the safety, identity, strength, potency, or quality of the Product.
Out of Specification (OOS)	An examination, measurement or test result that does not conform with pre-established specification requirements established by the relevant Party.

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Product	The Drug Substance and Drug Product manufactured by AMGEN.
Quality Assurance Disposition (QAD)	A document containing the disposition decision for a specific batch of Product.
Qualified Person	Qualified Person, as defined in 2001/83 EC and 2001/20 EC; responsible for (QP) certification of any Product batch prior to its use in a European clinical study.
Recall	A “recall” or “market withdrawal” (each as defined per Section 7.3 of Title 21 (Food and Drugs) of the Code of Federal Regulations, or, with respect to a jurisdiction other than the United States, the equivalent regulations of the applicable Regulatory Authority in such jurisdiction) of Product or any lots thereof.
Reference Sample	Sample collected from the manufacture of Product for the purpose of being analyzed, should the need arise, to support significant investigations.
Regulatory Authority	Any government administrative agency, commission or other governmental authority, body or instrumentality, or any federal, state, local, domestic or foreign governmental regulatory body.
Reprocessing	Reprocessing shall mean introducing an intermediate or active pharmaceutical ingredient, including one that does not conform to standards or specifications, back into the process and repeating a step (e.g., filtration) that is part of the established manufacturing process.
Retention Samples	A fully packaged unit from a batch of Drug Product. It is stored for identification purposes.
Rework	Rework shall mean subjecting an intermediate that does not conform to one or more processing steps that are different from the established manufacturing process to obtain acceptable quality intermediate or Product.
Specifications	AMGEN approved set of analytical methods, requirements, and acceptance criteria as used to judge the identity, purity and potency of all source materials, raw materials, and fmished filled Product which comprises the material, as referenced in the Specifications Schedule.
Specifications Schedule	The Specifications Schedule attached to the License Agreement.

4. RESPONSIBILITIES

4.1 Without limiting any other provision of this Quality Agreement, the Parties agree that this Quality Agreement is intended to carry out the following guiding principles:

4.1.1 The Parties’ quality obligations with respect to the manufacture, labeling, testing, release, and delivery of Product are as set forth in this Quality Agreement.

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4.1.1.1 The Parties acknowledge that AMGEN shall have the right to perform responsibilities hereunder through its Affiliates (as defined in the License Agreement) and contractors.

5. COMMUNICATION

5.1 AMGEN and COMPANY agree to provide verbal communication to one another, in a timely manner, as necessary or appropriate for a given issue. Both Parties also agree to follow-up and clarify promptly in writing those important verbal communications to ensure clarity of issues.

5.2 Routine verbal and written communications required herein shall be delivered to the individuals indicated in EXHIBIT A or their delegates.

5.3 Each Party must notify the other in writing of any (potential) theft, counterfeits and illegal diversion of Product manufactured by AMGEN within twenty-four (24) hours upon awareness of such events.

6. BATCH DISPOSITION (PRODUCT RELEASE)

6.1 AMGEN Quality Responsibility

6.1.1 AMGEN shall be responsible for the Manufacturer's Release of the material to COMPANY.

6.1.2 AMGEN shall provide to COMPANY the Disposition Package for each batch of material supplied to COMPANY, upon shipment. The documents to be included in the Disposition Package are provided in Exhibit B.

6.2 COMPANY Quality Responsibility

6.2.1 COMPANY shall be solely responsible for the Final Release of the Product for distribution within the Territory.

6.2.2 COMPANY shall be deemed to have conclusively and fully accepted the Product unless COMPANY notifies AMGEN in writing of any claim to the effect that the Product received did not meet the Specifications and/or cGMP requirements, within thirty (30) days of receipt.

6.2.3 A QP authorized by COMPANY will be responsible for certification of Product for use in clinical trials in the European Union, according to the requirements set out in the European Union cGMPs.

7. QUALITY CONTROL/TESTING

7.1 Transfer and Qualification of Analytical Testing

7.1.1 The provisions of this Section 7 supplement the terms of the License Agreement and Supply Agreement relating to the know-how and scientific and technical information needed for compliance of the Product in the United States, Canada and/or the European Union.

7.1.2 Refer to the Manufacturing Information Schedule for the transfer of analytical methods from AMGEN to COMPANY.

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7.1.3 As part of such transfer, AMGEN shall provide COMPANY with reference standard and non-commercial critical reagents and supporting documentation in accordance with AMGEN policies and procedures. Refer to the Manufacturing Information Schedule for the transfers of reference standard and non-commercial critical reagents.

7.2 AMGEN Testing Responsibility

7.2.1 AMGEN will conduct testing of Product according to Specifications, methods, policies and procedures as approved by AMGEN. AMGEN shall provide the Specifications to COMPANY per the Manufacturing Information Schedule.

7.2.2 Stability Testing

7.2.2.1 AMGEN will continue the initiated stability studies of the Product per the AMGEN Stability program and provide data updates as set forth in the Manufacturing Information Schedule. As soon as practical, AMGEN will notify COMPANY of any confirmed stability failure of the Product and provide periodic updates on the OOS investigation.

7.2.2.2 AMGEN will be responsible for assigning a Product expiration date per AMGEN's Stability program requirements.

7.3 COMPANY Testing Responsibility

7.3.1 Batch release documents will be evaluated by COMPANY upon receipt for conformance to Specifications and applicable cGMP requirements. COMPANY will not be performing additional testing to the AMGEN released batches.

8. REFERENCE SAMPLES

8.1 AMGEN shall retain Reference Samples for each manufactured batch of Product released to COMPANY per AMGEN established procedures.

8.2 The amount of samples collected will be in compliance with AMGEN policies and procedures and applicable Law.

9. RETENTION SAMPLES

9.1 COMPANY is responsible for retaining Retention Samples for each packaged batch of Product released for clinical distribution per established COMPANY procedures and applicable Law.

10. LABELAPPROVAL

10.1 Label Creation and Application

10.1.1 AMGEN will be responsible for labeling of Product that will be distributed to COMPANY according to AMGEN procedures. The label will include the following information: cautionary statement, Amgen artwork number, manufacturing date and drug product batch number.

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11. RECEIVING. SHIPPING, STORAGE and DESTRUCTION

11.1 AMGEN shall make Product available for shipment to COMPANY in an appropriate manner that will assure the stability of the Product during shipment, using defined, qualified packaging configurations.

11.2 AMGEN shall ship labeled Product to COMPANY per AMGEN policies and procedures.

11.3 Upon receipt, COMPANY is responsible for reviewing tracking data, inspecting security seals and labels for evidence of tamper, and performing reconciliation of Product upon receipt of shipment per COMPANY procedures. COMPANY shall notify AMGEN within two (2) business days of becoming aware of any discrepancies.

11.3.1.1 AMGEN and COMPANY will jointly investigate any discrepancies within AMGEN's defined quality systems.

11.4 COMPANY is responsible for reviewing shipping data such as temperature recording data and storage conditions upon receipt of shipment.

11.5 COMPANY is responsible for adequate storage of the Product upon receipt according to the storage requirements specified in the Specifications.

11.6 COMPANY shall be responsible for the destruction of any unused Product and material in accordance with applicable Law.

11.7 Unused cGMP materials including excipients, raw material, primary packaging components, product contacting material (e.g. resin) will be destroyed and reconciled by AMGEN per AMGEN procedures.

12. CHANGE CONTROL

12.1 Changes by AMGEN

12.1.1 AMGEN shall notify COMPANY of AMGEN's intention to implement any Material Change. The notification of such Material Change and the details of such Material Change shall be provided to COMPANY by AMGEN according to EXHIBIT C.

12.1.1.1 COMPANY's QA will respond to such notification for a Material Change within two (2) business days of receipt.

12.2 Notwithstanding anything to the contrary in this Section 12, AMGEN shall have the right to immediately make any change required to protect patient safety or as required by applicable Law and shall give COMPANY prompt written notice thereof.

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13. INVESTIGATIONS OF NONCONFORMANCES, DISCREPANCIES (POST DISTRIBUTION NC'S)

13.1 If a Nonconformance, as solely determined by AMGEN, is identified after a Product batch has been shipped to COMPANY, AMGEN shall inform COMPANY as soon as reasonably possible of such Nonconformance.

13.2 AMGEN will provide support, as necessary and reasonable, to enable COMPANY to comply with applicable regulatory reporting requirements that may result from the occurrence of Nonconformances.

14. VISITS, AUDITS AND INSPECTIONS

14.1 Person-in-Plants

14.1.1 Neither Party shall have the right to have a person-in-plant in the other Party's facilities to observe operations and documentations.

14.2 For Cause Audit by COMPANY

14.2.1.1 Upon the request of COMPANY and approval by AMGEN, AMGEN shall permit COMPANY to conduct a "For Cause" audit during the Term in the case of a quality or regulatory event, which events may include recall of Product in the Territory.

14.2.1.2 Such "For Cause" audits require prior written request by COMPANY and shall be conducted during normal AMGEN business hours. The scope, agenda, and timeline for such audit must be approved by AMGEN prior to conducting the audit. The written notification must clearly state the scope of the audit and regulatory standards to be used to conduct the audit.

14.2.2 Audit Findings

14.2.2.1 At COMPANY's or AMGEN's request, an exit meeting shall be held with COMPANY and its representatives and AMGEN and its representatives to discuss audit findings, if any. COMPANY shall provide AMGEN with a copy of the audit report within thirty (30) calendar days upon completion of the audit. For those findings that AMGEN determines in good faith may materially affect AMGEN's ability to perform the Services, AMGEN shall issue a written response to COMPANY's report within thirty (30) days of AMGEN's receipt of such report. AMGEN's response shall identify the timelines and approach for addressing COMPANY's findings.

14.3 Regulatory Agency Inspections

14.3.1 COMPANY shall notify AMGEN within twenty-four (24) hours upon notification by any Regulatory Authority of any intended inspection of AMGEN's facilities or records relating to the manufacturing, testing, and storage of the Product.

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14.3.2 AMGEN will be solely responsible for hosting and managing regulatory inspections at its facilities.

14.3.3 COMPANY will have the right to review and comment on AMGEN's proposed response to observations raised by the Regulatory Authorities relating to the Product and AMGEN shall consider such comments in good faith. AMGEN shall provide COMPANY with a copy of the final response after submission to any Regulatory Authorities.

14.3.4 AMGEN will inform COMPANY of any critical Regulatory Authority inspection observations not directly relevant to the Product where it can reasonably be assumed the observation impacts upon the Services or Product provided to COMPANY.

15. DISPUTE RESOLUTION

15.1 Disputes relating to non-compliance or nonconformance of Product with the Specifications shall be governed by the terms set forth in Section 11.4 of the License Agreement.

16. CUSTOMER COMPLAINTS

16.1 COMPANY shall notify AMGEN of any complaints related to the manufacturing processes of the Product supplied by AMGEN that reasonably require an investigation under applicable Law or current practices within one (1) business day after COMPANY first becomes aware of such information.

16.2 COMPANY will use commercially reasonable efforts to provide AMGEN with information and complaint samples, or if such samples are not available, images of defects in Product, including a reasonable failure description, in order to permit proper and timely complaint investigation specifically for the corresponding defect. Upon receipt of COMPANY's investigation request, AMGEN shall perform an investigation into the root cause of the problem according to AMGEN's policies and procedures, and provide an investigation update within forty-five (45) calendar days following receipt of such notification.

16.3 Complaint investigation requests and results shall be directly communicated between COMPANY and AMGEN complaint representatives. A list of contacts shall be provided to each Party and updated in writing by each Party within a reasonable period of time after any Party changes its contact(s).

17. REPROCESSING AND REWORK

17.1 AMGEN will not conduct any Reprocessing or Reworking of materials of Product without prior approval by COMPANY.

18. RECALLS AND VOLUNTARY WITHDRAWALS

18.1 COMPANY shall have the sole right to control a Recall of the Product in the Field in the Territory; provided that COMPANY shall not take any action with respect to any Recall in the Field in the Territory without first notifying AMGEN and meeting (in person, by telephone or otherwise, as mutually agreed) with

AMGEN (and, if so requested by AMGEN, Japan Licensee) to discuss the circumstances of such potential Recall and to consider appropriate courses of action provided that the foregoing shall not limit COMPANY's obligations in relation to Recalls under any applicable Law and COMPANY shall be entitled to take action in relation to a Recall without first notifying AMGEN where it considers such action is reasonably necessary to be taken in a time-frame that does not reasonably permit such notification (in which case it shall provide such notification promptly thereafter). COMPANY shall maintain complete and accurate records of any such Recall for such periods as may be required by Law, but in any event for no less than fifteen (15) years. AMGEN (and its licensees) shall have the sole right to control the handling of any Recall in Japan.

19. RESPONSIBLE PERSONS: CONTACT INFORMATION

19.1 The individuals listed in EXHIBIT A shall be the key points of contact between AMGEN and COMPANY relating to the rights and obligations of the Parties in this Quality Agreement.

20. GENERAL

20.1 The provisions of Sections 11.3 through 11.8 (inclusive) and 11.10 through 11.14 (inclusive) of the License Agreement are incorporated herein by reference and apply hereto mutatis mutandis.

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EXHIBIT A

Responsible Persons and Contact Information

COMPANY

Name	Email Address	Contact Number	Responsibility

AMGEN

Name	Email Address	Contact Number	Responsibility
Daniel Armstrong			Senior Manager, Alliance Management
Cylia Chen			Specialist, International Quality

Exhibit A Version Date: _____

Agreed and accepted for:	**Agreed and accepted for:**
[COMPANY NAME]	**AMGEN**
By:	By:
Printed Name:	Printed Name:
Title:	Title:
Date:	Date:

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EXHIBIT B
AMGEN Disposition Package

The following documents are to comprise the AMGEN Disposition Package to support the release of each Product batch to COMPANY:

General	Nonconformance List and Summary for cell banking, Drug Substance and Drug Product (Report includes only lot-tied nonconformances deemed by AMGEN to have a potential impact of the safety, identity, strength, potency, or quality of the Product, according to established AMGEN procedures.
Drug substance manufacture	Core batch documentation for each clinical batch, including Expansion/cell culture Harvest Purification Preparation of UF/DF buffers Formulation and Final Filtration CoC/QAD, CoA
Drug Product Manufacture	Batch documentation for each clinical batch, including Sterile filtration Filling Capping and Inspection CoC,CoA

Exhibit B Version Date: _____

Agreed and accepted for:	**Agreed and accepted for:**
(COMPANY NAME]	**AMGEN**
By:	By:
Printed Name:	Printed Name:
Title:	Title:
Date:	Date:

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EXHIBITC
Change Control Business Process

SOP-013477, Amgen's Partner Change Notification Process, governs the process by which AMGEN identifies and notifies COMPANY of changes as required per the Quality Agreement. This procedure leverages AMGEN's existing change control.

AMGEN Quality point of contact is responsible for screening changes for impact to COMPANY, notifying COMPANY of the change and recording COMPANY's assessment in AMGEN's change control management system. COMPANY is notified by the AMGEN Quality point of contact of a change through the use of a controlled form FORM-022482, Change Notification. The Change Notification will provide COMPANY with all relevant information regarding the proposed change thereby allowing COMPANY to fully assess the change and the impact of the change to COMPANY, including any applicable Product regulatory filing(s). COMPANY must provide a response to the change using this same form within two (2) business days from the date of receipt by COMPANY of such notification.

Exhibit C Version Date: _____

Agreed and accepted for:	**Agreed and accepted for:**
(COMPANY NAME]	**AMGEN**
By:	By:
Printed Name:	Printed Name:
Title:	Title:
Date:	Date:

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Schedule

Supply Agreement

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SUPPLY AGREEMENT

This **SUPPLY AGREEMENT** ("**Supply Agreement**") is made and entered into as of [ ], 2012 ("Effective Date") by and between Amgen Inc., a corporation organized under the laws of the State of Delaware having an address at One Amgen Center Drive, Thousand Oaks, California 91320-1799, U.S.A. ("**Amgen**"), and Pinta Biosciences, Inc., a Delaware corporation having an address at [ ] ("**Company**"). Amgen and Company are sometimes referred to herein individually as a "Party" and collectively as the "Parties".

RECITALS

WHEREAS, Amgen and Company have entered into that certain Exclusive License Agreement dated as of September 7, 2012 pursuant to which Amgen grants certain licenses to Company for the development, manufacture and commercialization of the Product (as defined therein) (the "**License Agreement**"); and

WHEREAS, in connection with the License Agreement, Company desires to procure from Amgen, and Amgen is willing to perform for Company, certain transitional fill/finish services relating to AMG 745 (as more fully described herein), on the terms and conditions hereof.

NOW, THEREFORE, in consideration of the premises and the mutual promises and covenants contained in this Supply Agreement, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledge, the Parties agree as follows:

1. DEFINITIONS

The following defined terms are used in this Supply Agreement and shall have the meanings set forth below. Capitalized terms used but not defined in this Supply Agreement shall have the meanings ascribed to them in the License Agreement.

"**Batch**" means a single lot of Finished Drug Product.

"**Company Proprietary Technology**" means all Technology and rights thereto relating to the Finished Drug Product that are transferred to Company pursuant to the License Agreement or that are thereafter owned, developed, or controlled by Company and that Company in turn provides to Amgen hereunder during the Term of this Supply Agreement.

"**Delivery**" (or Deliver or other variants thereof) means completion of in-process release testing by Amgen and the availability of Finished Drug Product for shipment pursuant to Section 3.2.

"**Delivery Date**" means a date stated in the Services Schedule for which Delivery of Finished Drug Product is expressly specified.

"**Disposition**" (or Dispose or other variants thereof) means either the rejection or acceptance of a Batch, or part thereof, by the applicable quality assurance department of Amgen.

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"**Drug Substance**" means the substance or mixture of substances intended to be used in the manufacture of AMG 745 and that, when used in the production of AMG 745, becomes an active pharmaceutical ingredient of AMG 745.

"**Facility**" means Amgen's facilities located in Thousand Oaks, California.

"**Finished Drug Product**" means Drug Substance that has been Processed by Amgen pursuant to this Supply Agreement and that meets the Specifications.

"**Intellectual Property Rights**" means any and all now known or hereafter existing: (i) rights associated with works of authorship, including copyrights and moral rights; (ii) trade secret rights; (iii) patent rights and industrial property rights; (iv) other proprietary rights in Technology of every kind and nature; and (v) all registrations, applications, renewals, and extensions of the foregoing, in each case in any jurisdiction throughout the world.

"**Processing**" means, with respect to Drug Substance, to filter, formulate, sterile filter, aseptically fill, lyophilize (if applicable), inspect and/or Disposition to form Finished Drug Product all in accordance with cGMP and the Specifications. "Process" and "Processed" shall have comparable meanings.

"**Quality Agreement**" means that certain agreement entitled "Quality Agreement" entered into by and between Company and Amgen and dated as of the date hereof, as such may be amended from time to time.

"**Services**" means the Processing tasks, functions and other responsibilities and activities specifically set forth in the Services Schedule.

"**Specifications**" means the written requirements for the Finished Drug Product which are attached as the Specifications Schedule to the License Agreement.

"**Subcontractor**" means a person or entity that has been retained by Amgen pursuant to the terms of this Supply Agreement to perform a portion of Amgen's obligations hereunder.

"**Technology**" means all inventions (whether or not patentable), discoveries, know-how, tradesecrets, methods, processes, techniques, confidential information, specifications, protocols, schematics, diagrams, reagents, compounds, samples, formulations, data, databases, works of authorship, and other forms of technology.

"**Term**" means the period of time during which this Supply Agreement is in effect in accordance herewith.

2. TERMS REGARDING SERVICES.

2.1 Services. During the Term and subject to the terms and conditions of this Supply Agreement, Amgen shall, or shall cause one or more of its Affiliates or Subcontractors to, perform the Services in accordance with cGMP for the purpose of Processing the Drug Substance for Company to produce and store Finished Drug Product. Amgen shall perform quality control and quality assurance testing consistent with cGMP as set out in the Quality

Agreement. The Parties agree that the Quality Agreement shall set forth the responsibilities of the Parties with respect to quality and regulatory aspects of the Services hereunder. Pending Processing of the Drug Substance into Finished Drug Product, Amgen shall store such Drug Substance on behalf of Company in accordance with the Specifications.

2.2 Cooperation and Coordination. The Parties shall cooperate with each other in all matters relating to the provision and receipt of the Services. Company and Amgen shall each appoint an authorized representative (each, a "Coordinator") for the exchange of all communications, other than legal notices, related to the Services. The name and title of the initial Coordinators shall be provided in writing. Each Party may replace its Coordinator at any time for any reason by providing written notice to the other Party.

2.3 Transitional Nature of the Services.

(i) Acknowledgement. Company acknowledges and agrees that (a) the Services provided hereunder are transitional in nature and are furnished by Amgen solely in connection with the transactions contemplated by the License Agreement; (b) Amgen does not routinely provide such Services to third parties; and (c) Amgen has no interest in continuing the provision of any of the Services after expiration of the Term. Company and Amgen expressly acknowledge and agree that the obligation of Amgen to provide transitional services under this Supply Agreement to Company following the Effective Date is limited to the Services set forth in the Services Schedule, and, except as specifically provided in the License Agreement, there exists no obligation on the part of Amgen to provide any other transitional or other services to Company following the Effective Date.

(ii) Transition Covenant. Company shall (a) timely perform the obligations of Company set forth in this Supply Agreement in support of the Services and, with the assistance of Amgen as provided in the License Agreement, timely complete the transition of the Services to Company or a third party on Company's behalf at the expiration of the Term; and (b) take all such action reasonably requested by Amgen or as otherwise reasonably necessary to facilitate, support and encourage the timely completion of the Services and transition the Services at the expiration of the Term to Company's internal organization, to one or more contract manufacturing organizations, or to one or more other third party suppliers acting on Company's behalf all as provided in the License Agreement.

3. TITLE, SHIPMENT, AND RISK OF LOSS.

3.1 Title. As between Amgen and Company, upon receipt of payment by Amgen from Company under Section 3.2 of the License Agreement, Company shall hold title to the Finished Drug Product.

3.2 Shipment of Finished Drug Product. Amgen and Company shall meet the Delivery Date requirements agreed to by the Parties as set forth in the Services Schedule. All Finished Drug Product shall be shipped to Company or its designee EXW (Ex Works) (as defined in Incoterms 2010) Amgen's Facility. Company shall establish and maintain an account with a mutually acceptable carrier for purposes of shipping Finished Drug Product from Amgen to Company or its designee. Company shall be responsible for shipping and transportation costs. Risk of loss or damage to Finished Drug Product shall transfer to Company when made available to Company for pickup at Amgen's Facility warehouse.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

4. TERM AND TERMINATION.

4.1 Term. The term of this Agreement shall commence on the Effective Date and shall, unless terminated earlier in accordance with this Article 4, expire on completion in full of the Services.

4.2 Suspension of Services. Amgen's obligations to perform the Services shall be automatically suspended if Company is in breach of any material covenant, warranty or obligation hereunder or under the License Agreement, until Company has cured such breach. This Supply Agreement shall automatically terminate upon the termination of the License Agreement.

4.3 Survival. In addition to any provision of this Supply Agreement that expressly survives the termination of this Supply Agreement, the provisions of Sections 2.3, 4.2 and 4.3 and Articles 1, 5, 6, 7, 9 and 10 shall survive the termination of this Agreement. All other provisions of this Agreement shall terminate and be of no further effect upon the termination of this Agreement for any reason.

5. REPRESENTATIONS AND WARRANTIES.

5.1 Representations and Warranties by Company. Company represents and warrants to Amgen as follows:

(i) Finished Drug Product supplied by Amgen under this Supply Agreement that is covered by the license granted under the License Agreement shall be used solely in accordance with the License Agreement; and

(ii) Company shall comply with all Laws, including all importation and export control laws, if applicable.

5.2 Disclaimer. EXCEPT AS EXPRESSLY PROVIDED IN THE LICENSE AGREEMENT, AMGEN MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, STATUTORY OR OTHERWISE, WITH RESPECT TO ANY SERVICE PROVIDED HEREUNDER OR FINISHED DRUG PRODUCT DELIVERED HEREUNDER, INCLUDING WARRANTIES OF TITLE, FITNESS FOR A PARTICULAR PURPOSE, MERCHANTABILITY, VALIDITY, AND NON-INFRINGEMENT OF INTELLECTUAL PROPERTY RIGHTS.

6. CONTRACTUAL RELATIONSHIP. Nothing contained in this Supply Agreement shall be construed as creating a partnership, joint venture, agency, trust, employer-employee relationship, or other association of any kind, each Party being individually responsible only for its obligations as set forth in this Supply Agreement.

7. CONFIDENTIALITY. Each Party agrees to protect the confidentiality of any Confidential Information received from the other Patty pursuant this Supply Agreement in accordance with Article 9 of the License Agreement, which article is incorporated herein by reference.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

8. INTELLECTUAL PROPERTY.

8.1 License Grant to Amgen. Subject to the terms and conditions of this Supply Agreement, Company hereby grants to Amgen a non-exclusive, non-transferable, fully-paid, and royalty-free license, with the right to sublicense to Subcontractors (prior approved by Company in writing), to use Company Proprietary Technology to perform the Services under this Supply Agreement.

8.2 No Implied Licenses. Except as expressly provided in this Article, nothing contained in this Supply Agreement is intended to confer by implication, estoppel, or otherwise, upon any Party any license or rights in any Intellectual Property Rights of the other Party.

9. LIMITATION OF LIABILITY.

9.1 The provisions of Section 8.2 of the License Agreement shall apply mutatis mutandis to this Supply Agreement.

10. MISCELLANEOUS.

10.1 General. The provisions of Sections 11.3 through 11.8 (inclusive) and 11.10 through 11.14 (inclusive) of the License Agreement are incorporated herein by reference and apply hereto mutatis mutandis.

10.2 Amendments. No amendment, supplement or other modification to any provision of this Supply Agreement shall be binding unless in writing and signed by both Parties.

10.3 Entire Agreement. This Supply Agreement, together with the License Agreement and the Quality Agreement, constitute the entire agreement between the Parties and supersedes all prior and contemporaneous agreements and understandings, both written and oral, between the Parties with respect to the subject matter hereof.

10.4 UN Convention. The United Nations Convention on Contracts for the International Sale of Goods shall have no application to, and shall be of no force and effect with respect to, this Supply Agreement or the matters herein set forth or contemplated.

[Signature page follows]

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

IN WITNESS WHEREOF, the authorized representatives of the Parties have executed this Supply Agreement as of the date first set forth above.

AMGEN INC.	PINTA BIOSCIENCES, INC.
By: _____	By: _____
Name:	Name:
Title:	Title:

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SCHEDULE

INVENTORY

Batch#	Quantity of Vials	Expiry Date	Notes
[*]	[*]	[*]	[*]

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

SCHEDULE

SERVICES

1. Description of the Services. The Services to be performed at Amgen's Facility are as follows: [*]

2. Description of the Finished Drug Product. AMG 745 material [*]

3. Delivery Dates. Amgen shall make the Finished Drug Product set forth on the Inventory Schedule available for pick-up at Amgen's Facility warehouse on a date to be mutually agreed by the parties in writing at least three (3) weeks in advance of the pickup date, which shall be [*].

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Schedule Licensed
Know-How

[*]

[32 pages omitted]

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Schedule

Licensed Materials

[*]

[4 pages omitted]

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Schedule

Licensed Patents

[*]

[6 pages omitted]

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Schedule

Milestones and Royalties

1. Milestone Payments: The Milestone Events and Milestone Payments to be made pursuant to Section 3.3 of the Agreement are as follows:

Milestone Event (Product)	Payment
Development Milestones with respect to the Product	
[*]	[*]
Commercial Milestones with respect to the Product	
[*]	[*]

2. Royalties: The royalty rates payable under Section 3.4 of the Agreement with respect to Net Sales of Product are as follows:

   (i) [*] on the portion of annual Net Sales for the Product less than [*];

   (ii) [*] on the portion of annual Net Sales for the Product between [*] and [*], inclusive; and

   (iii) [*] on the portion of annual Net Sales for the Product greater than [*].

   For the avoidance of doubt, if the Product is Covered by more than one Licensed Patent, the above royalty shall be paid only once.

3. Third Party Payments. In the event that Company or any of its Affiliates or Sublicensees obtains a license under Patent Rights of a Third Party in any country in the Territory that Company or its Affiliate or Sublicensee, on the advice of patent counsel, determines, in the absence of a license thereunder, would be considered to be Infringed by the development, manufacture, use, sale, offer for sale or import of the Product sold by Company (or its Affiliate or Sublicensee) in such country (in each case, a **"Necessary Third Party License"),** then Company may deduct [*] of the royalties actually paid to such Third Party under such Necessary Third Party License with respect to sales of the Product in such country from the royalty payments owed to Amgen pursuant to Section 2 of this Milestones and Royalties Schedule with respect to Net Sales of the Product in such country.

4. No Valid Claim. In the event that the Product is not Covered by at least one (1) Valid Claim of a Licensed Patent within the Territory, then the royalty rates set forth in Section 2(a) of this Milestones and Royalties Schedule with respect to the Product shall be reduced by [*].

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

5. Maximum Deduction. In no event, however, shall a deduction, or deductions, in the royalty rate pursuant to Section 3 of this Milestones and Royalties Schedule and Section 4 of this Milestones and Royalties Schedule, reduce the royalty rate payable by Company on Net Sales of a the Product during a given calendar quarter pursuant to Section 2 of this Milestones and Royalties Schedule by more than [*] in the aggregate.

6. Mutual Convenience of the Parties. The royalty and other payment obligations set forth hereunder have been agreed to by the Parties for the purpose of reflecting and advancing their mutual convenience, including the ease of calculating and paying royalties and other amounts to Amgen. Company hereby stipulates to the fairness and reasonableness of such royalty and other payment obligations and covenants not to allege or assert, nor to allow any of its Affiliates or Sublicensees to allege or assert, nor further to cause or support any other Third Parties to allege or assert, that any such royalty or other payment obligations are unenforceable or illegal in any way.

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Schedule

Permitted CMOs

[*]

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Schedule

Pre-Existing Agreements

[*]

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Schedule

Press Release

[Schedule begins on following page.]

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Amgen to License Assets to Atara Biotherapeutics, Kleiner Perkins Caufield & Byers' (KPCB) Newly Formed Drug Development Company

September x, 2012, Thousand Oaks, CA - Amgen (NASDAQ: AMGN) and KPCB today announced an agreement that licenses six Amgen assets to Atara Biotherapeutics, a newly formed drug development company financed by KPCB. The in-licensed assets from Amgen are in various stages of development, from preclinical to early clinical. These drugs will form the foundation of Atara's focus on developing innovative drug therapies for patients with cancer and chronic diseases, including nephrology and oncology. Financial terms of the transaction are not being disclosed.

Atara will have facilities in both the Bay Area and Thousand Oaks, Calif., where it can help broaden the biotechnology hub around Amgen. The Atara leadership team will be comprised of individuals having previous experience from both Amgen and KPCB. Amgen will have a minority equity interest in Atara, with rights to an observer seat on Atara's Board of Directors.

> "Amgen is excited to partner with KPCB, a preeminent venture capital firm, to foster a creative business model that will help advance molecules in Amgen's pipeline to treat serious illness," said Sean E. Harper, M.D., executive vice president of Research and Development at Amgen. "The creation of Atara Biotherapeutics also provides the opportunity to further foster biotechnology innovation in Amgen's headquarters' communities."
>
> "The model for Atara will enable us to build on Amgen's research to bring a promising group of therapeutics to patients with serious illnesses, enabling them to have a better quality of life," said Dr. Isaac Ciechanover, CEO Atara Biotherapeutics (former partner at KPCB).

About Kleiner Perkins

Since its founding in 1972, Kleiner Perkins Caufield & Byers has backed entrepreneurs in more than 500 ventures including AOL, Amazon.com, Citrix, Compaq, Electronic Arts, Google, Groupon, Intuit, Juniper Networks, Netscape, Sun, Symantec, Verisign, webMD and Zynga. This also includes lifesciences companies Genentech, Genomic Health, Idec and Onyx to name a few. KPCB portfolio companies employ more than 350,000 people worldwide. More than 150 of the firm's portfolio companies have gone public, and many other KPCB ventures have achieved success through mergers and acquisitions. KPCB focuses its global investments in three practice areas - digital, greentech and life sciences - and provides entrepreneurs with company-building expertise out of its offices in Silicon Valley, Beijing and Shanghai.

About Amgen Amgen discovers, develops, manufactures and delivers innovative human therapeutics. A biotechnology pioneer since 1980, Amgen was one of the first companies to realize the new science's promise by bringing safe, effective medicines from lab to manufacturing plant to patient. Amgen therapeutics have changed the practice of medicine, helping millions of people around the world in the fight against cancer, kidney disease, rheumatoid arthritis, bone disease and other serious illnesses. With a deep and broad pipeline of potential new medicines, Amgen remains committed to advancing science to dramatically improve people's lives. To learn more about our pioneering science and vital medicines, visit http://www.amgen.com/. Follow us on http://twitter.com/amgen.

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Schedule

Business Plan

[Schedule begins on following page.]

[*]
[60 pages omitted]

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Schedule

Product

[*]

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Exhibit 10.19

AMENDMENT NO. 1
TO THE
EXCLUSIVE LICENSE AGREEMENT

This **AMENDMENT NO. 1 TO THE EXCLUSIVE LICENSE AGREEMENT** (this "***Amendment***"), dated as of October 22, 2012 (the "***Amendment Effective Date***"), is made by and between **AMGEN INC.**, a Delaware corporation having an address of One Amgen Center Drive, Thousand Oaks, California 91320-1799 ("***Amgen***"), and **PINTA BIOTHERAPEUTICS, INC.**, a Delaware corporation ("***Licensee***").

WHEREAS, Amgen and Licensee entered into that certain Exclusive License Agreement, dated as of September 7, 2012 (the "***Agreement***"), pursuant to which Licensee received certain rights to develop and commercialize the Product (as defined in the Agreement);

WHEREAS, Amgen and Licensee wish to update certain portions of the Agreement.

NOW, THEREFORE, in consideration of the mutual promises and covenants hereinafter set forth, the Parties hereto agree to amend the Agreement as follows:

ARTICLE 1 – AMENDMENT

Capitalized terms used in this Amendment and not otherwise defined herein shall have the meanings ascribed to such terms in the Agreement.

1.1 **Correction of Licensee Name**. All references in the Agreement to "Pinta Biosciences" are hereby amended to refer instead to "Pinta Biotherapeutics".

1.2 **Addition of Specifications Schedule**. A new schedule entitled "Specifications" shall be appended to the Agreement as follows:

Schedule
Specifications

AMG 745 Specifications

[*] [*]

1.3 **Amendments to Section 1.5 of Licensed Know-How Schedule (AMG 745 Research Analytical Assays, Methods and Materials)**. The following table shall be appended to the end of the Section under the heading "Additional Materials":

Material/Reagent	Lot. No./Batch ID	Expiration Date	Amount Provided
[*]	[*]	[*]	[*]

1.4 **Amendment of Section 1.9 of Licensed Know-How Schedule (Pending Licensed Know-How)**. Section 1.9 of the Licensed Know-How Schedule shall be replaced in its entirety with the following: "[Section intentionally left blank.]"

1.5 **Amendment of Press Release Schedule**. The Press Release Schedule shall be replaced in its entirety with the revised press release attached to this Amendment as Schedule 1.

ARTICLE 2 – REFERENCE TO AND EFFECT ON THE AGREEMENT

2.1 **Reference to Agreement**. Upon and after the effectiveness of this Amendment, each reference in the Agreement to "this Agreement", "hereunder", "hereof" or words of like import referring to the Agreement shall mean and be a reference to the Agreement as modified and amended hereby.

2.2 **Effectiveness of Amendment**. Upon execution and delivery of this Amendment by both Parties, the amendments set forth above shall be effective as of the Amendment Effective Date. Except as specifically amended above, the Agreement is and shall continue to be in full force and effect and is hereby in all respects ratified and confirmed and shall constitute the legal, valid, binding and enforceable obligations of the Parties.

2.3 **No Waiver**. The execution, delivery and effectiveness of this Amendment shall not operate as a waiver of any right, power or remedy of either Party under the Agreement, nor constitute a waiver of any provision of the Agreement.

ARTICLE 3 – MISCELLANEOUS

3.1 **Governing Law**. This Amendment shall be governed by and construed in accordance with the laws of [*], as applied to agreements executed and performed entirely within [*], without regard to any applicable principles of conflicts of law. Each of the Parties hereby irrevocably and unconditionally consents to the exclusive jurisdiction of the courts of [*] for any matter arising out of or relating to this Amendment and the transactions contemplated hereby.

3.2 **Headings**. The heading for each article and section in this Amendment has been inserted for convenience of reference only and is not intended to limit or expand on the meaning of the language contained in the particular article or section.

3.3 **Counterparts**. This Amendment may be executed in two (2) or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

[Signature page follows]

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

IN WITNESS THEREOF, duly authorized representatives of the Parties hereto have executed this Amendment as of the date first set forth above.

Pinta Biotherapeutics, Inc.

By: /s/ Isaac Ciechanover
Name: Isaac Ciechanover
Title: CEO

Amgen Inc.

By: /s/ Jonathan Peacock
Name: Jonathan Peacock
Title: Executive Vice President & CFO

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Schedule 1

Revised Press Release

Amgen and KPCB Partner to Create Atara Biotherapeutics

AMGEN AND KLEINER PERKINS CAUFIELD & BYERS PARTNER TO CREATE NEW SPIN-OUT BIOTECH COMPANY

Amgen to License Pipeline Assets to Newly Formed Company

THOUSAND OAKS, Calif. and MENLO PARK, Calif. (Oct. 25, 2012) – Amgen and Kleiner Perkins Caufield & Byers (KPCB) today announced the formation of Atara Biotherapeutics, (**www.atarabio.com**), a new drug development company with a focus on innovative therapies for patients with chronic diseases in therapeutic areas including nephrology and oncology. Atara Biotherapeutics will have licenses to six Amgen assets, which are in various stages of development, ranging from preclinical to Phase 1. Financial terms of the transaction are not being disclosed.

Atara Biotherapeutics will be financed initially by KPCB, and Isaac Ciechanover, M.D., a former partner at KPCB, will serve as the president and chief executive officer. Amgen will have a minority equity interest in Atara Biotherapeutics.

“Amgen is excited to partner with KPCB to help advance molecules in Amgen’s pipeline that have the potential to treat serious illnesses,” said Sean E. Harper, M.D., executive vice president of Research and Development at Amgen. “With facilities in both the Bay Area and near Amgen’s Thousand Oaks campus, Atara Biotherapeutics will provide the opportunity to further foster biotechnology innovation in Amgen’s communities.”

“We look forward to building on Amgen’s research to bring a promising group of therapeutics to patients with serious illnesses,” said Ciechanover.

About Amgen

Amgen discovers, develops, manufactures and delivers innovative human therapeutics.

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A biotechnology pioneer since 1980, Amgen was one of the first companies to realize the new science's promise by bringing safe and effective medicines from lab to manufacturing plant to patient. Amgen therapeutics have changed the practice of medicine, helping millions of people around the world in the fight against cancer, kidney disease, rheumatoid arthritis, bone disease and other serious illnesses. With a deep and broad pipeline of potential new medicines, Amgen remains committed to advancing science to dramatically improve people's lives. To learn more about our pioneering science and our vital medicines, visit **www.amgen.com**. Follow us on **www.twitter.com/amgen**.

About Kleiner Perkins

Kleiner Perkins Caufield & Byers (KPCB) has backed entrepreneurs in more than 500 ventures leading to 150 IPOs, 350,000 jobs and a deep strategic network. The firm has helped build pioneering companies like Align, Amazon, Electronic Arts, Genentech, Genomic Health, Google, Intuit, Juniper Networks, Netscape, Symantec, VeriSign and WebMD. KPCB partners serve on the boards of Amazon, Apple, Bloom Energy, Flipboard, Foundation Medicine, Google, Hewlett-Packard, Nest, Square, Tesaro and Zynga, among others. KPCB accelerates the success of entrepreneurs with a team of partners delivering company-building services including strategy, operational scaling, recruiting, business development and product delivery. The firm invests in all stages from seed and incubation to growth companies. KPCB operates from offices in Menlo Park, San Francisco, Shanghai and Beijing. **http://www.kpcb.com**.

Forward-Looking Statements

This news release contains forward-looking statements that involve significant risks and uncertainties, including those discussed below and others that can be found in Amgen's Form 10-K for the year ended Dec. 31, 2011, and in its periodic reports on Form 10-Q and Form 8-K. Amgen is providing this information as of the date of this news release and does not undertake any obligation to update any forward-looking statements contained in this document as a result of new information, future events or otherwise.

No forward-looking statement can be guaranteed and actual results may differ materially from those Amgen projects. Amgen's results may be affected by Amgen's ability to successfully market both new and existing products domestically and internationally, clinical and regulatory developments (domestic or foreign) involving current and future products, sales growth of recently launched products, competition from other products (domestic or foreign), difficulties or delays in manufacturing its products. In addition, sales of Amgen products are affected by reimbursement policies imposed by third-party payors, including governments, private insurance plans and managed care providers and may be affected by regulatory, clinical and guideline developments and domestic and international trends toward managed care and healthcare cost containment as well as U.S. legislation affecting pharmaceutical pricing and reimbursement. Government and others' regulations and reimbursement policies may affect the development, usage and pricing of Amgen products. Furthermore, Amgen's research, testing, pricing, marketing and other operations are subject to extensive regulation by domestic and foreign government regulatory authorities. Amgen or others could identify safety, side effects or manufacturing problems with Amgen products after they are on the market. Amgen's business may be impacted by government investigations, litigation and products liability claims. Further, while Amgen routinely obtains patents for its products and technology, the protection offered by its patents and patent applications may be challenged, invalidated or circumvented by its competitors. Amgen depends on third parties for a significant portion of its manufacturing capacity for the supply of certain of its current and future products and limits on supply may constrain sales of certain of its current products and product candidate development. In addition, Amgen competes with other companies with respect to some of its marketed products as well as for the discovery and development of new products. Discovery or identification of new product candidates cannot be guaranteed and movement from concept to product is uncertain; consequently, there can be no guarantee that any particular product candidate will be successful and become a commercial product. Further, some raw materials, medical devices and component parts for Amgen products are supplied by sole third-party suppliers. Amgen's business performance could affect or limit the ability of its Board of Directors to declare a dividend or its ability to pay a dividend or repurchase its common stock.

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Exhibit 10.20

AMENDMENT NO. 2
TO THE
EXCLUSIVE LICENSE AGREEMENT

This **AMENDMENT NO. 2 TO THE EXCLUSIVE LICENSE AGREEMENT** (this "***Amendment***"), dated as of June 28, 2013 (the "***Amendment Effective Date***"), is made by and between **AMGEN INC.,** a Delaware corporation having an address of One Amgen Center Drive, Thousand Oaks, California 91320-1799 ("***Amgen***"), and **PINTA BIOTHERAPEUTICS, INC.,** a Delaware corporation having an address of 3260 Bayshore Blvd, Brisbane, California 94005 ("***Licensee***").

WHEREAS, Amgen and Licensee entered into that certain Exclusive License Agreement, dated as of September 7, 2012 and amended as of October 22, 2012 (the "***Agreement***"), pursuant to which Licensee received certain rights to develop and commercialize the Products (as defined in the Agreement) and that certain Supply Agreement dated October 22, 2012, pursuant to which Amgen is performing for Licensee certain transitional fill/finish services relating to AMG 745, as amended (the "***Supply Agreement***");

WHEREAS, Amgen and Licensee wish to update certain portions of the Agreement.

NOW, THEREFORE, in consideration of the mutual promises and covenants hereinafter set forth, the Parties hereto agree to amend the Agreement as follows:

ARTICLE 1 - AMENDMENT

Capitalized terms used in this Amendment and not otherwise defined herein shall have the meanings ascribed to such terms in the Agreement or Supply Agreement, as applicable.

1.1 Amendment of Section 7.2(f). Section 7.2(f) shall be deleted in its entirety and replaced with the following: "All Product Lots and Finished Placebo provided to Company by Amgen pursuant to the Supply Agreement, as of the date each such Product Lot or Finished Placebo is provided to Company as set forth herein and in the Supply Agreement, have been manufactured, packaged, stored and labeled (as applicable) in accordance with cGMP and, with respect to Product Lots, the specifications set forth in the Specifications Schedule, and with respect to Finished Placebo, the specifications set forth in Exhibit C to the Quality Agreement;".

1.2 Amendment of Section 8.1.1. Clause (d) of Section 8.1.1 shall be deleted in its entirety and replaced with the following: "(d) the death or injury of a person caused by the failure of the Product Lots or Finished Placebo delivered to Company hereunder and the Supply Agreement to be manufactured in compliance with cGMP or, with respect to Product Lots, the specifications set forth in the Specifications Schedule, and, with respect to Finished Placebo, the specifications set forth in Exhibit C to the Quality Agreement;".

1.3 The Parties agree that, for purposes of Section 8.1.2(c) (Indemnity by Company) of this Agreement, the Exploitation of the Product is deemed to include the Exploitation of Finished Placebo.

ARTICLE 2 - REFERENCE TO AND EFFECT ON THE AGREEMENT

2.1 Reference to Agreement. Upon and after the effectiveness of this Amendment, each reference in the Agreement to "this Agreement", "hereunder", "hereof" or words of like import referring to the Agreement shall mean and be a reference to the Agreement as modified and amended hereby.

2.2 Effectiveness of Amendment. Upon execution and delivery of this Amendment by both Parties, the amendments set forth above shall be effective as of the Amendment Effective Date. Except as specifically amended above, the Agreement is and shall continue to be in full force and effect and is hereby in all respects ratified and confirmed and shall constitute the legal, valid, binding and enforceable obligations of the Parties.

2.3 **No Waiver**. The execution, delivery and effectiveness of this Amendment shall not operate as a waiver of any right, power or remedy of either Party under the Agreement, nor constitute a waiver of any provision of the Agreement.

ARTICLE 3 - MISCELLANEOUS

3.1 Governing Law. This Amendment shall be governed by and construed in accordance with the laws of [*], as applied to agreements executed and performed entirely within [*], without regard to any applicable principles of conflicts of law. Each of the Parties hereby irrevocably and unconditionally consents to the exclusive jurisdiction of the courts of [*] for any matter arising out of or relating to this Amendment and the transactions contemplated hereby.

3.2 Headings. The heading for each article and section in this Amendment has been inserted for convenience of reference only and is not intended to limit or expand on the meaning of the language contained in the particular article or section.

3.3 Counterparts. This Amendment may be executed in two (2) or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

[Signature page follows]

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IN WITNESS THEREOF, duly authorized representatives of the Parties hereto have executed this Amendment as of the date first set forth above.

Pinta Biotherapeutics, Inc.		**Amgen Inc.**	
By:	/s/ Isaac Ciechanover	By:	/s/ William J. Rich
Name:	Isaac Ciechanover	Name:	William J. Rich
Title:	CEO	Title:	Vice President, Supply Chain

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Exhibit 10.21

EXCLUSIVE LICENSE AGREEMENT

by and between

AMGEN INC.

and

SANTA MARIA BIOSCIENCES, INC.

Dated as of September 7, 2012

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LIST OF SCHEDULES

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EXCLUSIVE LICENSE AGREEMENT

This **EXCLUSIVE LICENSE AGREEMENT** (this "**Agreement**") is entered into as of September 7, 2012 (the "**Signing Date**") by and between **AMGEN INC.**, a Delaware corporation having an address at One Amgen Center Drive, Thousand Oaks, California 91320 ("**Amgen**"), and **SANTA MARIA BIOSCIENCES, INC.**, a Delaware corporation ("**Company**"). Company and Amgen are sometimes referred to herein individually as a "**Party**" and collectively as the "**Parties**".

RECITALS

WHEREAS, Amgen is a company engaged in the research, development, manufacturing and commercialization of pharmaceutical and biotechnology products;

WHEREAS, Amgen possesses certain rights to patents and other intellectual property related to its proprietary compounds AMG 777, AMG 434, AMG 217 and ActRIIB5, comprising the respective amino acid sequences set forth on the Products Schedule (collectively, the "**Products**" and each individually, a "**Product**");

WHEREAS, Company desires to license from Amgen such intellectual property rights, and to commercially develop, manufacture, use and distribute the Products based upon the same throughout the Territory (defined below); and

WHEREAS, Amgen desires to grant such a license to Company in accordance with the terms and conditions of this Agreement.

NOW, THEREFORE, in consideration of the premises and the mutual promises and covenants contained in this Agreement, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereto agree as follows:

ARTICLE 1. DEFINITIONS

All references to particular Schedules, Articles or Sections shall mean the Schedules to, and Articles and Sections of, this Agreement, unless otherwise specified. For the purposes of this Agreement and the Schedules hereto, the following words and phrases shall have the following meanings:

"**Abandoned Patent Right**" has the meaning set forth in Section 4.2 (Amgen Step-In Right).

"**Affiliate**" means, with respect to any Person, any other Person which controls, is controlled by or is under common control with such Person, for as long as such control exists. For purposes of this Section, "**control**" means the direct or indirect ownership of more than fifty percent (50%) of the voting or economic interest of a Person, or the power, whether pursuant to contract, ownership of securities or otherwise, to direct the management and policies of a Person. For clarity, once a Person ceases to be an Affiliate of a Party, then, without any further action, such Person shall cease to have any rights, including license and sublicense rights, under this Agreement by reason of being an Affiliate of such Party.

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"**Agreement**" has the meaning set forth in the Preamble.

"**Amgen**" has the meaning set forth in the Preamble.

"**Amgen Acquiree**" has the meaning set forth in Section 11.9 (Sale Transaction or Amgen Acquisition).

"**Amgen Acquisition**" has the meaning set forth in Section 11.9 (Sale Transaction or Amgen Acquisition).

"**Amgen Cell Lines**" shall mean those certain proprietary cell lines that Amgen has developed for the generation of the Products. For avoidance of doubt, Amgen Cell Lines are Licensed Materials hereunder.

"**Amgen Indemnified Parties**" has the meaning set forth in Section 8.1.2 (By Company).

"**Audited Party**" has the meaning set forth in Section 3.9 (Records and Audits).

"**BLA**" means (a) a Biologics License Application, supplemental Biologics License Application, or similar application filed or to be filed with the FDA, as described in Title 21 of the U.S. Code of Federal Regulations, Part 601, *et seq.*, or (b) any corresponding foreign application in another country or regulatory jurisdiction in the Territory, including, in the case of the European Union, a Marketing Approval Application filed with the EMA pursuant to the centralized approval procedure or with the applicable Regulatory Authority of a country in the European Union with respect to the mutual recognition or any other national approval procedure.

"**cGMP**" means the FDA's current good manufacturing practices, as specified in 21 C.F.R. §§ 210 and 211 and the FDA's guidance documents and all successor regulations and guidance documents thereto, and foreign equivalents thereof with respect to the European Union and Canada.

"**Closing Date**" means the first date on which the Company sells Series A Preferred Stock and Series A-1 Preferred Stock to its initial investors, including Amgen.

"**Commercially Reasonable Efforts**" means those efforts and resources commensurate with those efforts commonly used in the biopharmaceutical industry by a company of comparable size in connection with the development or commercialization of biopharmaceutical products that are of similar status, including, with respect to commercial potential, the proprietary position of the product, the regulatory status and approval process, the probable profitability of the applicable product, and other relevant factors such as technical, legal, scientific or medical factors. In determining the level of efforts constituting "**Commercially Reasonable Efforts,**" the following shall [*].

"**Company**" has the meaning set forth in the Preamble.

"**Company Indemnified Parties**" has the meaning set forth in Section 8.1.1 (By Amgen).

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"**Confidential Information**" has the meaning set forth in Section 9.1.1 (Confidential Information).

"**Control**" or "**Controlled**" means, with respect to any Know-How, material, Patent Right, or other intellectual property right, the possession (whether by ownership or license) by a Party or its Affiliates of the ability to grant to the other Party a license or access as provided herein to such Know-How, material, Patent Right, or other intellectual property right, without violating the terms of any agreement or other arrangement with any Third Party, or being obligated to pay any royalties or other consideration therefor, in existence as of the time such Party or its Affiliates would first be required hereunder to grant the other Party such license or access.

"**Cover**" means (a) with respect to Licensed Know-How, the Exploitation of the product would require use of such Licensed Know-How, and (b) with respect to a Patent Right, a Valid Claim would (absent a license thereunder or ownership thereof) be Infringed by the Exploitation of the product; *provided* that in determining whether a Valid Claim that is a claim of a pending application would be Infringed, it shall be treated as if issued as then currently prosecuted. Cognates of the word "**Cover**" shall have correlative meanings.

"**Defending Party**" has the meaning set forth in Section 4.4 (Defense of Third Party Claims).

"**Diligence Notice**" has the meaning set forth in Section 5.2 (Diligence).

"**Disclosing Party**" has the meaning set forth in Section 9.1.1 (Confidential Information).

"**Dispute**" has the meaning set forth in Section 10.2.1(b).

"**EMA**" means the European Medicines Agency or any successor entity thereto.

"**Enforcing Party**" has the meaning set forth in Section 4.3.3 (Progress Reports; Participation).

"**Exclusivity Period**" has the meaning set forth in Section 2.3 (Right of First Negotiation).

"**Exploit**" means to research, develop, improve, make, use, offer for sale, sell, import, export or otherwise exploit, or transfer possession of or title in, a product. Cognates of the word "**Exploit**" shall have correlative meanings.

"**FDA**" means the United States Food and Drug Administration or any successor entity thereto.

"**Field**" means any and all human and veterinary uses.

"**First Commercial Sale**" means, with respect to any Product in any country, the first sale to a Third Party for end use or consumption of such Product in such country after a BLA has been granted in such country for such Product.

"**Framework Patents**" means any Patent Right (other than a Licensed Patent) Controlled by Amgen or its Affiliates as of the Effective Date that: (i) has a claim that is infringed by the amino acid sequence of a Product, (ii) has a claim that is infringed by a nucleic acid sequence that encodes the amino acid sequence of a Product, or (iii) has a claim that claims Licensed Know How.

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"**FTE**" means the equivalent of the work of one employee full time for one year consisting of at least a total of [*] weeks or [*] hours per year (excluding vacations and holidays). No one person shall be permitted to account for more than one FTE.

"**FTE Rate**" means $[*] per FTE per year.

"**GAAP**" means the then-current generally accepted accounting principles in the United States as established by the Financial Accounting Standards Board or any successor entity or other entity generally recognized as having the right to establish such principles in the United States, in each case consistently applied. Unless otherwise defined or stated herein, financial terms shall be calculated under GAAP.

"**Governmental Authority**" means any court, agency, department, authority or other instrumentality of any national, state, county, city or other political subdivision.

"**IND**" means an Investigational New Drug Application filed with the FDA for human clinical testing of a drug or any foreign equivalent thereof.

"**Indication**" means the disease or condition for which an IND has been filed.

"**Infringe**" or "**Infringement**" means any infringement as determined by Law, including, without limitation, direct infringement, contributory infringement or any inducement to infringe.

"**Issuing Party**" has the meaning set forth in Section 9.2.2 (Review).

"**Know-How**" means techniques, technology, trade secrets, inventions (whether patentable or not), methods, know-how, data and results (including pharmacological, toxicological and clinical data and results), analytical and quality control data and results, regulatory documents, and other information, compositions of matter, cells, cell lines, assays, animal models and other physical, biological, or chemical material.

"**Law**" means, individually and collectively, any and all laws, ordinances, rules, directives, administrative circulars and regulations of any kind whatsoever of any Governmental Authority within the applicable jurisdiction.

"**Licensed Know-How**" means all Know-How that both (a) is Controlled by Amgen and (b) was actually used by Amgen in its development of the Products at such time as Amgen last actively developed the applicable Product prior to the Closing Date, including the Know-How set forth on the Licensed Know-How Schedule. [*]

"**Licensed Materials**" means those certain materials set forth on the Licensed Materials Schedule.

"**Licensed Patents**" means the Patent Rights set forth on the Licensed Patents Schedule.

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"**Losses**" has the meaning set forth in Section 8.1.1 (By Amgen).

"**Marketing Approval**" means all approvals, licenses, registrations or authorizations of the Regulatory Authority in a country, necessary for the manufacture, use, storage, import, marketing and sale of a Product in such country.

"**Milestone Events**" has the meaning set forth in Section 3.3 (Milestone Payments).

"**Milestone Payments**" has the meaning set forth in Section 3.3 (Milestone Payments).

"**Negotiation Notice**" has the meaning set forth in Section 2.3 (Right of First Negotiation).

"**Net Sales**" means, with respect to any Product, the gross sales price of such Product sold by Company, its Affiliates or Sublicensee(s) (the "**Selling Party**") for the sale of such Product to Third Parties, less:

(a) non-recoverable sales taxes, excise taxes, use taxes, value-added tax, and duties paid by the Selling Party in relation to Product(s) and any other equivalent governmental charges imposed upon the importation, use or sale of Product(s) (excluding taxes when assessed on income derived from sales);

(b) credits and allowances (actually allowed or paid) for defective or returned Product(s), including allowances for spoiled, damaged, out-dated, rejected, returned, withdrawn or recalled Product(s);

(c) reasonable fees paid to wholesalers, distributors, selling agents (excluding any sales representatives of a Selling Party), group purchasing organizations, Third Party payors, other contractees and managed care entities;

(d) reasonable transportation charges relating to Product(s), including handling charges and insurance premiums relating thereto to the extent included as a separate entry on the invoice for such product (*provided* that [*] items in this clause (d) shall [*] for the relevant period);

(e) retroactive price reductions actually granted to the Third Party applicable to sales of such product;

(f) trade, cash, prompt payment and/or quantity discounts, actually allowed and taken directly by the Third Party, and mandated discounts; and

(g) refunds, rebates, chargebacks and other allowances or payments to Governmental Authorities.

Net Sales shall be determined from books and records maintained in accordance with GAAP, consistently applied throughout the organization and across all products of the entity whose sales of Products are giving rise to Net Sales.

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Where a Product is sold in combination with other therapeutically active ingredients, the Net Sales applicable to such transaction shall be calculated by multiplying the total Net Sales of such combined product by the fraction A/(A+B), where A is the actual price of the Product in the same dosage amount or quantities in the applicable country during the applicable quarter if sold separately, and B is the sum of the actual prices of all other therapeutics with which the Product is combined, in the same dosage amount or quantities in the applicable country during the applicable quarter if sold separately. If A or B cannot be determined because values for the Product or other therapeutics with which the Product is combined are not available separately in a particular country, then Amgen and Company shall discuss an appropriate allocation for the fair market value of the Product and other therapeutics with which the Product is combined to mutually determine Net Sales for the relevant transactions based on an equitable method of determining the same that takes into account, in the Territory, variations in potency, the relative contribution of each therapeutically active ingredient, and relative value to the end user of each therapeutically active ingredient.

Net Sales shall also include, with respect to any Product sold or otherwise disposed of for any consideration other than an exclusively monetary consideration on bona fide arm's length terms, an amount equal to the average sales price for such Product having the same dosage form and strength during the applicable reporting period in the country where such sale or other disposal occurred when such Product is sold alone and not with other products, or if such Product is not sold alone in such country during the applicable reporting period, then an amount equal to the average sales price during the applicable reporting period generally achieved for such Product having the same dosage form and strength in the rest of the Territory.

Sales of Product(s) between or among Company and its Affiliates or Sublicensees shall be excluded from the computation of Net Sales and no payments shall be payable on such sales except where such Affiliates or Sublicensees are end users.

"**Out-License**" has the meaning set forth in Section 2.3 (Right of First Negotiation).

"**Party**" has the meaning set forth in the Preamble.

"**Patent Rights**" means any provisional and non-provisional patents and patent applications, together with all additions, divisions, continuations, continuations-in-part, substitutions, reissues, re-examinations, issued patents, substitutes, foreign counterparts, extensions, registrations, patent term extensions, supplemental protection certificates, renewals and the like with respect to any of the foregoing.

"**Permitted CMO**" means (a) a Third Party commercial manufacturing organization identified on the attached Permitted CMO Schedule (and all such Third Party's Affiliates), as such schedule may be updated by mutual written agreement by the Parties from time to time or (b) any other party deemed to be a Permitted CMO pursuant to the terms of Section 2.4.2.

"**Permitted CMO Agreement**" has the meaning set forth in Section 2.4.2(a) (Transfer of Licensed Know-How and Licensed Materials).

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"**Permitted CMO Request**" has the meaning set forth in Section 2.4.2(d) (Transfer of Licensed Know-How and Licensed Materials).

"**Person**" means any corporation, limited or general partnership, limited liability company, joint venture, trust, unincorporated association, governmental body, authority, bureau or agency, any other entity or body, or an individual.

"**Phase 1 Clinical Trial**" means any human clinical trial of a Product that satisfies the requirements of 21 C.F.R. § 312.21(a), or its successor regulation, or its non-United States equivalents, including the portion of a combination Phase 1 Clinical Trial and Phase 2 Clinical Trial that is the Phase 1 component, in accordance with the applicable protocol and as reasonably designated by Company.

"**Phase 2 Clinical Trial**" means any human clinical trial of a Product that satisfies the requirements of 21 C.F.R. § 312.21(b), or its successor regulation, or its non-United States equivalents, including the portion of a combination Phase 2 Clinical Trial and Phase 3 Clinical Trial that is the Phase 2 component, in accordance with the applicable protocol and as reasonably designated by Company.

"**Phase 3 Clinical Trial**" means any human clinical trial of a Product that satisfies the requirements of 21 C.F.R. § 312.21(c), or its successor regulation, or its non-United States equivalents, including the portion of a combination Phase 2 Clinical Trial and Phase 3 Clinical Trial that is the Phase 3 component, in accordance with the applicable protocol and as reasonably designated by Company.

"**Pivotal Trial**" means (a) a Phase 2 Clinical Trial, or a combination Phase 2 Clinical Trial and Phase 3 Clinical Trial, that (taken together with any other trials completed prior to or concurrently with such trial) is intended to support Marketing Approval for a Product by the relevant Regulatory Authority in the indication under study, or (b) a Phase 3 Clinical Trial.

"**Pre-Existing Agreements**" means those agreements listed on the Pre-Existing Agreements Schedule.

"**Product(s)**" has the meaning set forth in the Recitals.

"**Quality Agreement**" means that certain quality agreement, by and between the Parties, to be entered into as of the Closing Date and to be attached substantially in the form of hereto as the Quality Agreement Schedule.

"**Receiving Party**" has the meaning set forth in Section 9.1.1 (Confidential Information).

"**Regulatory Authority**" means any Governmental Authority or other authority responsible for granting Marketing Approvals for Products, including the FDA, EMA and any corresponding national or regional regulatory authorities.

"**Regulatory Change**" has the meaning set forth in Section 5.2 (Diligence).

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"**Regulatory Exclusivity**" means, with respect to a Product in a country, any exclusive marketing rights or data exclusivity rights conferred by the applicable Regulatory Authority in such country with respect to the Product, other than a Patent Right.

"**Regulatory Filing**" means any filing with any Governmental Authority with respect to the research, development, manufacture, distribution, pricing, reimbursement, marketing or sale of a Product.

"**Release**" has the meaning set forth in Section 9.2.2 (Review).

"**Reviewing Party**" has the meaning set forth in Section 9.2.2 (Review).

"**Royalty Term**" has the meaning set forth in Section 3.4 (Royalties).

"**Sale Transaction**" has the meaning set forth in Section 11.8 (Successors and Assigns).

"**Selling Party**" has the meaning set forth in the definition of "Net Sales".

"**Signing Date**" has the meaning set forth in the Preamble.

"**Specified Diligence Failure**" has the meaning set forth in Section 5.2 (Diligence).

"**Sublicensee(s)**" means any Person other than an Affiliate of Company to which Company has granted a sublicense under this Agreement.

"**Summary**" has the meaning set forth in Section 2.3 (Right of First Negotiation).

"**Term**" has the meaning set forth in Section 10.1 (Term).

"**Terminated Product**" means (a) in the event of a termination of this Agreement by Company pursuant to Section 10.3.2 (Discretionary Termination), the applicable terminated Products and (b) in the event of any other termination of this Agreement, all Products.

"**Territory**" means the entire world.

"**Third Party**" means a Person other than (a) Amgen or any of its Affiliates and (b) Company or any of its Affiliates.

"**Third Party Acquirer**" has the meaning set forth in Section 11.9 (Sale Transaction or Amgen Acquisition).

"**Transaction Notice**" has the meaning set forth in Section 2.3 (Right of First Negotiation).

"**United States**" or "**U.S.**" means the United States of America (including the District of Columbia).

"**Valid Claim**" means a claim of any issued and unexpired patent or patent application within the Licensed Patents and that has not been held invalid or unenforceable by a final decision of a

court or governmental agency of competent jurisdiction, which decision can no longer be appealed or was not appealed within the time allowed; *provided* that if a claim of a pending patent application within the Licensed Patents [*], such claim shall not constitute a Valid Claim for the purposes of this Agreement [*].

ARTICLE 2. LICENSE GRANT; CLOSING

Section 2.1 Grant. Subject to the terms and conditions of this Agreement, commencing on the Closing Date, Amgen hereby grants to Company (a) an exclusive (even as to Amgen and its Affiliates), royalty bearing, sublicenseable (but only in accordance with Section 2.2 (Sublicenses) and Section 2.3 (Right of First Negotiation)), license under the Licensed Patents, (b) a non-exclusive, royalty bearing, sublicenseable (but only in accordance with Section 2.2 (Sublicenses) and Section 2.3 (Right of First Negotiation)) license under the Licensed Know-How, and (c) an exclusive (even as to Amgen and its Affiliates) license and right of reference, with the right to grant sublicenses and further rights of reference (but only in accordance with Section 2.2 (Sublicenses) and Section 2.3 (Right of First Negotiation)), under any existing Regulatory Filings that Amgen or any of its Affiliates Controls with respect to the Products; in each case, to Exploit Product(s) in the Field in the Territory during the Term. Notwithstanding the foregoing, the Licensed Know-How shall be sublicenseable only in connection with the rights of Company with respect to Products and not with respect to any other products or services.

2.1.1 Covenant Not to Sue. In addition to the licenses set forth in this Section 2.1 (Grant) above, commencing on the Closing Date, Amgen hereby covenants not to sue Company, its Affiliates or any Sublicensee under the Framework Patents with respect to the Exploitation of Products in the Field in the Territory. Subject to Section 11.8 (Successors and Assigns), the Company may transfer this Covenant Not to Sue. Amgen shall require any Amgen successor in interest to the Framework Patents to also covenant not to sue Company, its Affiliates or any Sublicensee under the Framework Patents with respect to the Exploitation of Products in the Field in the Territory. Should Amgen fail to secure such a covenant from a successor in interest, then immediately prior to the transfer of the Framework Patents to the successor in interest, Amgen will be deemed to have granted to Company a non-exclusive, fully paid-up, royalty-free, sublicenseable license under the Framework Patents to Exploit Product(s) in the Field in the Territory during the Term.

Section 2.2 Sublicenses. Subject to compliance by Company with its obligations under Section 2.3 (Right of First Negotiation) below, commencing on the Closing Date, the licenses granted in Section 2.1 (Grant) (including, if applicable, in the last sentence of Section 2.1.1 (Covenant Not to Sue)) may be sublicensed, in full or in part, by Company to its Affiliates and Third Parties (with the right to sublicense through multiple tiers), *provided* that as a condition precedent to and requirement of any such sublicense:

(a) Any such permitted sublicense shall be in writing and shall be consistent with and subject to the terms and conditions of this Agreement;

(b) Company shall be responsible for any and all obligations of such Sublicensee as if such Sublicensee were "Company" hereunder; and

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(c) Any such Sublicensee shall agree in writing to be bound by the substantially similar obligations of Company hereunder that are relevant to the rights sublicensed by Company to Sublicensee under such sublicense agreement, including with respect to Article 9 (Confidentiality), and Sections 2.7 (Limited Exploitation Rights), 8.1 (Indemnity), 10.2.2 (Termination for IP Challenge), and 10.5 (Effects of Termination).

Company shall provide Amgen, within [*] days following execution of each sublicense, prompt written notice thereof (which notice shall include the name of the Sublicensee and the general scope of such sublicense). Thereafter, upon Amgen's reasonable request, Company shall provide to Amgen a copy of any such sublicense agreement executed by Company; *provided* that the financial terms (and any other terms Company is required to keep confidential) of any such sublicense agreement may be redacted to the extent not pertinent to an understanding of a Party's rights or obligations under this Agreement.

Section 2.3 Right of First Negotiation.

2.3.1 If Company seeks to grant a sublicense (an "**Out-License**") to a Third Party for development and/or commercialization of AMG 777 (or, to the extent Company has de-prioritized AMG 777, the backup Product thereto for which Company is actively seeking to fulfill its diligence obligation hereunder pursuant to Section 5.2 (Diligence)), then Company shall notify Amgen in advance in writing and provide a non-confidential summary of the Product that is the subject of the proposed sublicense, as well as the intended scope (which the Parties agree shall be initially for worldwide rights) of the Out-License (a "**Transaction Notice**"). If Amgen desires to evaluate such Out-License, then Amgen shall notify Company within [*] days of its receipt of the Transaction Notice (a "**Negotiation Notice**"). Promptly after Company's receipt of a Negotiation Notice, Company shall provide Amgen with a confidential summary of the Product Company is seeking to Out-License (a "**Summary**"), including existing material clinical and preclinical data, as well as such other information in Company's possession that Amgen may reasonably request, which Summary shall be deemed to be Confidential Information of Company under this Agreement. For [*] following Amgen's receipt of a Summary (the "**Exclusivity Period**"), Amgen shall have an exclusive right to negotiate an exclusive, royalty-bearing license to such Product from Company. If Amgen (i) does not deliver a Negotiation Notice to Company within the applicable [*] period after receipt of the Negotiation Notice, (ii) does not deliver to Company a written proposal for the terms of an Out-License to Amgen during the Exclusivity Period, or (iii) declines in writing the Out-License after review of the Summary, then Amgen shall be deemed to have waived its rights under this Section 2.3 (Right of First Negotiation) with respect to such Product. If Amgen and Company do not mutually agree on the terms of an Out-License for such Product to Amgen within the Exclusivity Period, Company shall be free to negotiate an Out-License for such Product with any Third Party, subject to the terms of Section 2.2 (Sublicenses) and Section 2.3.2. For clarity, an Out-License shall not include the grant of a sublicense to a contract manufacturer or a contract research organization for the purpose of manufacturing or developing Products for Company or to a Third Party distributor selling finished Product purchased from Company, and this Section 2.3 (Right of First Negotiation) shall not restrict Company in any manner with respect to such a sublicense.

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2.3.2 If Company's board of directors approves the initiation of a process for (i) a Sale Transaction or (ii) a response to an unsolicited offer for an Out-License, in each case related to Company's rights in AMG 777 (or, to the extent Company has de-prioritized AMG 777, the backup Product thereto for which Company is actively seeking to fulfill its diligence obligation hereunder pursuant to Section 5.2 (Diligence)), then Company shall notify Amgen concurrently with any other notifications required hereunder (*provided* that a signed letter sent via electronic or facsimile transmission shall qualify as such written notice) and provide the intended scope (i.e., field, territory and other relevant terms) of the Out-License and/or Sale Transaction.

2.3.3 Upon the Completion of an Initial Public Offering (as defined in the investor rights agreement to be entered into by the Parties) or a sale of all or substantially all of Company's assets or business, Amgen's rights under this Section 2.3 (Right of First Negotiation) shall terminate.

Section 2.4 Transfer of Licensed Know-How and Licensed Materials. Amgen shall transfer to Company (or, in the case of Amgen's transfer of the Amgen Cell Lines, to the Permitted CMO) the Licensed Know-How listed on the Licensed Know-How Schedule and the Licensed Materials listed on the Licensed Materials Schedule, in accordance with a schedule to be mutually agreed by the Parties (*provided* such transfer must be completed within [*] after the Closing Date), and provide limited consulting support, in accordance with this Section 2.4 (Transfer of Licensed Know-How and Licensed Materials). Following the Signing Date, the Parties will in good faith reasonably cooperate to review and, if necessary, update the Licensed Know-How and Licensed Materials Schedules to correct and/or supplement such Schedules (and, as necessary, timely deliver the relevant Licensed Know-How and Materials to the Company.

2.4.1 Amgen shall provide, at its expense, consulting support (not to exceed [*] in the aggregate) in connection with such transfer and the Exploitation of Products in the Territory during the [*] period after the Closing Date. If Company requires additional consulting support in excess of [*] in the aggregate or beyond such period after the Closing Date in connection with such transfer or the Exploitation of Products in the Territory, then Company may request such additional support in writing. Amgen shall notify Company within [*] after receipt of such request whether it, in its sole discretion, is willing to provide such additional consulting support, which support shall be at Company's expense, at the FTE Rate for the relevant Amgen employees.

2.4.2 With respect to Amgen's transfer of the Amgen Cell Lines, the Parties agree that the following procedures shall apply:

(a) Prior to such transfer, Company shall designate, and enter into a binding agreement with, one of the Permitted CMOs, which agreement shall provide for, among other things, (i) confidentiality and non-use provisions at least as protective as those set forth hereunder under Section 9.1 (Confidential Information) and (ii) such additional provisions as are required to comply with the manufacturing and other limitations set forth in this Section 2.4.2 (such agreement, the "**Permitted CMO Agreement**"). Upon Amgen's reasonable request, Company shall provide to Amgen a copy of any such Permitted CMO Agreement (including any material amendment thereto) executed by Company; *provided* that the financial terms (and any

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other terms Company is required to keep confidential) of any such agreement may be redacted to the extent not pertinent to Amgen's confirmation of the restrictive provisions set forth in this Section 2.4.2. Notwithstanding anything to the contrary, Company and Company's Sublicensees are deemed Permitted CMOs, and shall not be required to enter into a Permitted CMO Agreement prior to receiving the Amgen Cell Lines or conducting any manufacturing activities in connection therewith, and Amgen shall deliver such cell lines to Company and/or Company's Sublicensees within a reasonable time following Company's written request. For avoidance of doubt, if Company (itself, or through a third party, Affiliate, or Sublicensee) [*] (excluding any [*], but including any [*]) [*], such [*] shall [*], and the Permitted CMO restrictions set forth herein shall [*].

(b) Following Company's and such Permitted CMO's entry into the Permitted CMO Agreement, Amgen shall, at the direction of Company, transfer the Amgen Cell Lines to the Permitted CMO to generate the Products.

(c) Company agrees that it shall not, and it shall use its commercially reasonable efforts to cause the Permitted CMO not to: (i) reverse engineer or otherwise deconstruct the Amgen Cell Lines or the initial Amgen cell culture media provided therewith, or to determine or to seek to determine information (including, but not limited to, the gene or amino acid sequence) or characteristics regarding the Amgen Cell Lines or such media, other than as expressly required to manufacture the Products; (ii) clone, express, or otherwise produce any products or materials (including, without limitation, any progeny or derivatives thereof) fi-om the Amgen Cell Lines, other than as expressly permitted under this Agreement; (iii) notwithstanding anything to the contrary in Section 9.4.1 (Right to Publish), publish or otherwise publicly disclose the Amgen Cell Lines; or (iv) permit any non-controlled security access to the Amgen Cell Lines or otherwise transfer or provide any of the Amgen Cell Lines to a Third Party or any of its Affiliates, other than as expressly required to manufacture the Products.

(d) Upon a termination or expiration of the Permitted CMO Agreement (including as a result of the appointment, with prior written notice to Amgen, by Company of a replacement Permitted CMO), the Permitted CMO shall promptly return any remaining Amgen Cell Lines and related Licensed Know-How and Licensed Materials to Amgen. If, at any time, Company desires to add a new Third Party commercial manufacturer to the Permitted CMO Schedule, it shall notify Amgen in writing (a "**Permitted CMO Request**"), and Amgen shall have the right, for [*] after receipt of such Permitted CMO Request, to inspect, at a reasonable time and on a reasonable basis (at Amgen's cost), such manufacturer's facilities to confirm its ability to fully comply with the restrictive provisions set forth in this Section 2.4.2. If Amgen rejects a Permitted CMO Request pursuant to the foregoing, it will notify Company of the reason(s) for such rejection and provide reasonable detail regarding the actions Company (or the applicable Third Party commercial manufacturer) may take to remedy such reasons for rejection. If Amgen does not reject a Permitted CMO Request within the [*] notice period, the applicable Third Party shall be deemed a Permitted CMO.

(e) Notwithstanding anything to the contrary, if, outside the scope of this Agreement, Amgen allows any Third Party commercial manufacturer access to or use of the Amgen Cell Lines, such Third Party shall be deemed a Permitted CMO.

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2.4.3 Company acknowledges that any materials transferred by Amgen to Company (or the Permitted CMO) under this Agreement are experimental in nature and may have unknown characteristics and therefore agrees to use prudence and reasonable care in the use, handling, storage, transportation and disposition and containment of any such materials. Accordingly, no such materials shall be used in any human application, including any clinical trial.

Section 2.5 Intentionally omitted.

Section 2.6 No Other Rights. Each Party acknowledges that the rights and licenses granted under this Article 2 (License Grant) and elsewhere in this Agreement are limited to the scope expressly granted. Accordingly, except for the rights expressly granted under this Agreement, no right, title, or interest of any nature whatsoever is granted whether by implication, estoppel, reliance, or otherwise, by either Party to the other Party. All rights that are not specifically granted herein are reserved.

Section 2.7 Limited Exploitation Rights. Without limiting the provisions of Section 2.6 (No Other Rights), Company agrees (on behalf of itself and its Affiliates), and shall cause each of its Sublicensees to agree as a condition to the grant of a Sublicense, not to Exploit any Licensed Know-How or Licensed Patents in connection with any products or services other than Products.

ARTICLE 3. FEES, ROYALTIES AND PAYMENTS

Section 3.1 Intentionally omitted.

Section 3.2 Intentionally omitted.

Section 3.3 Milestone Payments. Company shall pay to Amgen certain milestone payments ("**Milestone Payments**") following the first occurrence of certain milestone events, as set forth in Section 1 of the Milestones and Royalties Schedule (the "**Milestone Events**"). Company shall pay to Amgen the applicable Milestone Payment within [*] after the occurrence of the applicable Milestone Event. Each Milestone Payment is payable only once; except as set forth in Section 1 of the Milestones and Royalties Schedule, no Milestone Payment shall be payable for subsequent or repeated achievements of such Milestone Event with one or more of the same or different Products. Each of the Milestone Payments shall be non-refundable and non-creditable. In the event that a Milestone Event relating to clinical development for a specific Product is achieved and payment that was due and payable with respect to the previous Milestone Event(s) for such Product has not been made by Company, then Company shall promptly pay Amgen such unpaid payment with respect to such previous Milestone Event(s) for such Product.

Section 3.4 Royalties. Company shall pay to Amgen on a calendar quarterly basis the tiered royalties set forth in Section 2 of the Milestones and Royalties Schedule on annual Net Sales of Products sold by a Selling Party during the applicable Royalty Term, subject to the applicable deductions set forth in the Milestones and Royalties Schedule. Any such payment obligations accrued during a calendar quarter shall be made within [*] after the end of each such calendar quarter. Company's obligation to pay royalties with respect to a Product in a particular country shall commence upon the First Commercial Sale of such Product in such country and shall expire on a country-by-country and Product-by-Product basis on the later of (a) the date on which the

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Exploitation of a Product is no longer Covered by a Valid Claim of a Licensed Patent in such country, (b) the loss of Regulatory Exclusivity for the Product in such country, and (c) the tenth (10th) anniversary of the First Commercial Sale of the Product in such country (the "**Royalty Term**").

Section 3.5 Intentionally omitted.

Section 3.6 Method of Payment; Royalty Reporting. Unless otherwise agreed by the Parties, all payments due from Company to Amgen under this Agreement shall be paid in U.S. Dollars by wire transfer or electronic funds transfer of immediately available funds to an account designated by Amgen. After the First Commercial Sale of the first Product and until expiration of the last Royalty Term, Company shall prepare and deliver to Amgen royalty reports of the sale of Products by the Selling Parties for each calendar quarter within [*] after the end of each such calendar quarter specifying in the aggregate and on a Product-by-Product and country-by-country basis: (a) total gross amounts for Products sold or otherwise disposed of by a Selling Party; (b) amounts deducted by category in accordance with the definition of "Net Sales" in Article 1 from gross amounts to calculate Net Sales; (c) Net Sales; and (d) royalties payable.

Section 3.7 Currency Conversion. In the case of sales outside the United States, payments received by Company shall be expressed in the U.S. Dollar equivalent calculated on a quarterly basis in the currency of the country of sale and converted to their U.S. Dollar equivalent using the average rate of exchange over the applicable calendar quarter to which the sales relate, in accordance with (a) the then-current standard methods of Company or the applicable Sublicensee, to the extent reasonable and consistently applied and (b) GAAP; *provided* that if, at such time, Company does not use a rate for converting into U.S. Dollar equivalents that is maintained in accordance with GAAP, then Company shall use a rate of exchange which corresponds to the rate of exchange for such currency reported in *The Wall Street Journal*, Internet U.S. Edition at www.wsj.com, as of the last day of the applicable reporting period (or, if unavailable on such date, the first date thereafter on which such rate is available). Company shall inform Amgen as to the specific exchange rate translation methodology used for a particular country or countries.

Section 3.8 Late Payments. In the event that any payment due hereunder that is not the subject of a good faith dispute is not made when due, the payment shall accrue interest beginning on the day following the due date thereof, calculated at the annual rate of the sum of (a) [*] plus (b) the prime interest rate quoted by *The Wall Street Journal*, Internet U.S. Edition at www.wsj.com on the date said payment is due, the interest being compounded on the last day of each calendar quarter; *provided* that in no event shall said annual interest rate exceed the maximum rate permitted by Law. Each such payment when made shall be accompanied by all interest so accrued. Said interest and the payment and acceptance thereof shall not negate or waive the right of any Party to seek any other remedy, legal or equitable, to which it may be entitled because of the delinquency of any payment including, but not limited to termination of this Agreement as set forth in Article 10 (Term and Termination).

Section 3.9 Records and Audits. Company shall keep complete and accurate records relating to the calculations of Net Sales generated in the then current calendar year and payments required under this Agreement, and during the preceding [*]. Amgen shall have the right, once

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annually at its own expense, to have a nationally recognized, independent, certified public accounting firm, selected by it and subject to Company's prior written acceptance (which shall not be unreasonably withheld), review any such records of Company and its Affiliates and Sublicensees (the "**Audited Party**") in the location(s) where such records are maintained by the Audited Party upon reasonable written notice (which shall be no less than [*] prior written notice) and during regular business hours and under obligations of strict confidence, for the sole purpose of verifying the basis and accuracy of payments made under Section 3.4 (Royalties) within the [*] period preceding the date of the request for review. No calendar year shall be subject to audit under this Section more than once. Company shall receive a copy of each such report concurrently with receipt by Amgen. Should such inspection lead to the discovery of a discrepancy to Amgen' s detriment, Company shall, within [*] after receipt of such report from the accounting firm, pay any undisputed amount of the discrepancy together with interest at the rate set forth in Section 3.8 (Late Payments). Amgen shall pay the full cost of the review unless the underpayment of amounts due to Amgen is greater than [*] of the amount due for the entire period being examined, in which case Company shall pay the cost charged by such accounting firm for such review. Should the audit lead to the discovery of a discrepancy to Company's detriment, Company may credit the amount of the discrepancy, without interest, against future payments payable to Amgen under this Agreement, and if there are no such payments payable, then Amgen shall pay to Company the amount of the discrepancy, without interest, within [*] after Amgen's receipt of the report.

Section 3.10 Taxes.

3.10.1 Sales Tax. Company is responsible for the payment of any state or local, sales or use, or similar fees or taxes arising as a result of the transfer of Licensed Materials by Amgen to Company pursuant to Section 2.4 (Transfer of Licensed Know-How and Licensed Materials), and Company shall remit such fees or taxes to Amgen, as the collection agent, upon invoice.

3.10.2 Withholding. In the event that any Law requires Company to withhold taxes with respect to any payment to be made by Company pursuant to this Agreement, Company shall notify Amgen of such withholding requirement prior to making the payment to Amgen and provide such assistance to Amgen, including the provision of such documentation as may be required by a tax authority, as may be reasonably necessary in Amgen's efforts to claim an exemption from or reduction of such taxes. Company shall, in accordance with such Law, withhold taxes from the amount due, remit such taxes to the appropriate tax authority, and furnish Amgen with proof of payment of such taxes within [*] following the payment. If taxes are paid to a tax authority, Company shall provide reasonable assistance to Amgen to obtain a refund of taxes withheld, or obtain a credit with respect to taxes paid.

ARTICLE 4. PATENT PROSECUTION, MAINTENANCE AND INFRINGEMENT

Section 4.1 Prosecution and Maintenance.

4.1.1 Company shall have the first right to file, prosecute and maintain all Patent Rights specified under Licensed Patents, in each case at Company's sole expense using outside counsel reasonably acceptable to Amgen. Company shall use Commercially Reasonable Efforts to prepare, file, prosecute, defend and maintain all such Patent Rights; *provided* that Company does

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not represent or warrant that any patent will issue or be granted based on patent applications contained in the Licensed Patents. Amgen shall reasonably cooperate with Company's requests for data, affidavits, and other information and assistance to support prosecution and maintenance of such Patent Rights; *provided* that Company shall reimburse Amgen for its reasonable documented out-of-pocket expenses with respect to such cooperation. Company shall, at least [*] prior to submission or within [*] of receipt, forward to Amgen copies of any significant office actions, communications, and correspondence relating to the Licensed Patents. Amgen shall have the right to comment on and to discuss such prosecution and maintenance activities with Company, and Company shall consider the same in good faith.

Section 4.2 Amgen Step-In Right. Notwithstanding the foregoing, if Company declines to file, prosecute or maintain any Patent Rights described in Section 4.1.1, elects to allow any Patent Rights described in Section 4.1.1 to lapse in any country, or elects to abandon any such Patent Rights (in each case solely to the extent contained in the Licensed Patents) before all appeals within the respective patent office have been exhausted (each, an "**Abandoned Patent Right**"), then:

(a) Company shall provide Amgen with reasonable notice of such decision so as to permit Amgen to decide whether to file, prosecute or maintain such Abandoned Patent Rights and to take any necessary action (which notice shall, in any event, be given no later than [*] prior to the next deadline for any action that may be taken with respect to such Abandoned Patent Right with the U.S. Patent & Trademark Office or any foreign patent office).

(b) Amgen, at Amgen's expense, may assume control of the filing, prosecution and/or maintenance of such Abandoned Patent Rights. The continued filing, prosecution or maintenance of such Abandoned Patent Rights shall be at Amgen's sole discretion.

(c) Amgen shall have the right to transfer the responsibility for such filing, prosecution and maintenance of such Abandoned Patent Rights to patent counsel (outside or internal) selected by Amgen.

(d) Company shall, at Amgen's reasonable request and expense, assist and cooperate in the filing, prosecution and maintenance of such Abandoned Patent Rights.

(e) In the event a patent issues with respect to any such Abandoned Patent Rights, Amgen shall provide reasonable notice to Company thereof and such Abandoned Patent Right shall be excluded from the license granted by Amgen to Company under Section 2.1 (Grant), unless Company (i) reimburses Amgen for its internal and external costs and expenses related to the prosecution and maintenance of such Abandoned Patent Right within [*] of issuance of any such patent and (ii) assumes, in writing, the responsibility for the continued prosecution and maintenance of such Patent Rights in accordance with the provisions of Section 4.1 (Prosecution and Maintenance).

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Section 4.3 Enforcement.

4.3.1 Company Enforcement. Each Party shall notify the other promptly in writing when any Infringement by a Third Party is uncovered or reasonably suspected. Company shall have the first right to enforce any patent within the Licensed Patents against any Infringement or alleged Infringement thereof, and in each case shall at all times keep Amgen informed as to the status thereof. Company may, at its own expense, institute suit against any such infringer or alleged infringer and control, defend and settle such suit in a manner consistent with the terms and provisions hereof, and recover any damages, awards or settlements resulting therefrom, subject to Section 4.5 (Recovery). Amgen shall reasonably cooperate in any such litigation at Company's expense; where necessary, Amgen shall join in, or be named as a necessary party to, such litigation. Company shall not enter into any settlement of any claim described in this Section 4.3.1 (Company Enforcement) that admits to the invalidity or unenforceability of the Licensed Patents, incurs any financial liability on the part of Amgen, requires an admission of liability, wrongdoing or fault on the part of Amgen, without Amgen's prior written consent, in each case, such consent not to be unreasonably withheld.

4.3.2 Amgen Enforcement. If Company elects not to take good faith steps to enforce any patent within the Licensed Patents described in Section 4.3.1 (Company Enforcement) with respect to an Infringement (or otherwise take good faith steps to resolve such Infringement) in a particular country within [*] of receiving notice that an Infringement exists in such country (provided the foregoing shall not limit Amgen's right to pursue equitable relief at any time in any court of competent jurisdiction in order to protect its rights in the Licensed Patents), then it shall so notify Amgen in writing, and upon receiving such notice, then Amgen may, in its sole judgment and at its own expense, take steps to enforce any such patent, including instituting suit against any such infringer or alleged infringer, and control, defend and settle such suit in a manner consistent with the terms and provisions hereof, and recover any damages, awards or settlements resulting therefrom, subject to Section 4.5 (Recovery). Company shall reasonably cooperate in any such litigation at Amgen's expense; where necessary, Company shall join in, or be named as a necessary party to, such litigation. Amgen shall not enter into any settlement of any claim described in this Section 4.3.2 that admits to the invalidity or unenforceability of the Licensed Patents, incurs any financial liability on the part of Company or requires an admission of liability, wrongdoing or fault on the part of Company without Company's prior written consent, in each case, such consent not to be unreasonably withheld.

4.3.3 Progress Reports; Participation. The Party initiating or defending any enforcement action described in this Section 4.3 (Enforcement) (the "**Enforcing Party**") shall keep the other Party reasonably informed of the progress of any such enforcement action, and such other Party shall have the individual right to participate with counsel of its own choice at its own expense. The selection of such counsel will be subject to the Enforcing Party's approval (which shall not be unreasonably withheld).

Section 4.4 Defense of Third Party Claims. If either (a) any Product Exploited by or under authority of Company becomes the subject of a Third Party's claim or assertion of Infringement of a patent relating to the manufacture, use, sale, offer for sale or importation of such Product in the Field in the Territory, or (b) a declaratory judgment action is brought naming either Party as a defendant and alleging invalidity or unenforceability of any of the Licensed Patents, the Party first having notice of the claim or assertion shall promptly notify the other Party, and the Parties shall promptly confer to consider the claim or assertion and the appropriate course of action. Unless the Parties otherwise agree in writing, each Party shall have the right to defend itself

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against a suit that names it as a defendant (the "**Defending Party**"). Neither Party shall enter into any settlement of any claim described in this Section 4.4 that admits to the invalidity or unenforceability of the Licensed Patents, incurs any financial liability on the part of the other Party, or requires an admission of liability, wrongdoing or fault on the part of the other Party, without such other Party's prior written consent, in each case, such consent not to be unreasonably withheld. In any event, the other Party shall reasonably assist the Defending Party and cooperate in any such litigation at the Defending Party's request and expense.

Section 4.5 Recovery. Except as otherwise provided, the costs and expenses of the Party bringing suit under Section 4.3 (Enforcement) shall be borne by such Party, and any damages, settlements or other monetary awards recovered shall be shared as follows: (i) the amount of such recovery actually received by the Party controlling such action shall first be applied to the out-of-pocket costs of each Party in connection with such action; and then (ii) the remainder of the recovery shall be shared between the Parties as follows:

(a) If Company is the Enforcing Party, as if such recovery were Net Sales under this Agreement and Company shall pay to Amgen a portion of such Net Sales equal to the royalties calculated and payable with respect to the applicable Product under Section 3.4 (Royalties); and

(b) If Amgen is the Enforcing Party, [*] to Amgen, and [*] to Company.

Section 4.6 Patent Term Extensions and Filings for Regulatory Exclusivity Periods. Company shall advise Amgen in advance when it is considering any patent term extension or supplementary protection certificates or their equivalents for the Licensed Patents. With respect to any patent listings required for any Regulatory Exclusivity for Products in the Territory, the Parties shall mutually agree on which Licensed Patents to list.

Section 4.7 Patent Marking. Company shall mark, and shall cause all other Selling Parties to mark, Products with all Licensed Patents in accordance with applicable Law, which marking obligation shall continue for as long as (and only for as long as) required under applicable Law.

ARTICLE 5. OBLIGATIONS OF THE PARTIES

Section 5.1 Responsibility. Following the Closing Date and at all times during the Term (except as expressly stated otherwise herein), Company shall be responsible for, and shall bear all costs associated with, the research, development and commercialization of the Product(s) in the Territory, including regulatory, pharmacovigilance, manufacturing, distribution, marketing and sales activities. Subject to Company's obligations hereunder, all decisions concerning the development, marketing and sales of Product(s) in the Territory, including the clinical and regulatory strategy, design, sale, price and promotion of Product(s) covered under this Agreement, shall be within the sole discretion of Company.

Section 5.2 Diligence. Company shall (directly and/or through one or more Affiliates and/or Sublicensees or subcontractors) use Commercially Reasonable Efforts to develop and commercialize the Products in the Territory, [*]. The foregoing shall include use of Commercially Reasonable Efforts (directly and/or through one or more Affiliates and/or Sublicensees) with respect to [*]. In addition to the obligations of Company to use

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Commercially Reasonably Efforts, if Company, its Affiliates and/or their respective Sublicensees have not [*], Company shall promptly (but in no event later than [*] after each such applicable date) notify Amgen in writing of such failure to achieve such event (a "**Specified Diligence Failure**") in a timely manner (the "**Diligence Notice**"); *provided* that, if Company either (A) fails to timely [*] despite its good faith efforts to do so or (B) has a Specified Diligence Failure as a result of [*] as required under [*], then such diligence deadline shall be equitably extended to account for [*] to comply therewith (*provided*, in the case of a failure under clause (A), such equitable extension shall [*]). Company will notify Amgen if such an equitable extension is necessary, and will provide Amgen with a good faith, non-binding estimate of the expected duration of such extension. Notwithstanding anything to the contrary, Amgen shall have the right to terminate this Agreement for a Specified Diligence Failure by providing [*] written notice to Company, *provided* such Specific Diligence Failure is not cured during such notice period. Company shall notify Amgen immediately upon obtaining Marketing Approval of each Product in each country.

Section 5.3 Reports. On January 15 and July 15 of each year, Company shall submit to Amgen a report summarizing in reasonable detail, on a Product-by-Product basis, activities related to the Exploitation of Products that Company or any of its Affiliates has performed, or caused to be performed, during the preceding six (6)-month period, and future activities related to the Exploitation of Products it then-currently expects to initiate during the following six (6)-month period.

Section 5.4 AMG 434 Quality Agreement. On the Closing Date, the Parties shall enter into the Quality Agreement with respect to the AMG 434 drug substance intermediate being provided by Amgen to Company as part of the Licensed Materials hereunder.

Section 5.5 Pre-Existing Agreements. Promptly after the Closing Date, Amgen shall assign the Pre-Existing Agreements to Company, to the extent it has the right under such agreement(s) to do so (and will use commercially reasonable efforts to obtain any required consents). Until the effective date of such assignment or sublicense, as applicable, (a) Company agrees to perform, or assist Amgen in performing, Amgen's obligations under such agreement, and (b) Amgen agrees to use reasonable efforts to provide Company with any rights Amgen receives under such agreement and sublicense, as applicable.

Section 5.6 Company Location. Within sixty (60) days following the Closing Date, Company, Pinta Biosciences, Inc. or Nina Biosciences, Inc. (either alone or together) shall establish facilities in or around Thousand Oaks, California (the "**Thousand Oaks Facilities**"). At least one of Company, Pinta Biosciences, Inc., or Nina Biosciences, Inc. shall be obligated to maintain such Thousand Oaks Facilities until the earliest of (a) two (2) years following the date of such establishment, (b) the end of the Term or (c) a Sale Transaction of Company. Promptly after the Closing Date, Amgen and Company shall work together to mutually identify appropriate personnel candidates to develop and commercialize the Products in the Territory. Company shall use commercially reasonable efforts to hire and retain such candidates.

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ARTICLE 6. INTENTIONALLY OMITTED.

ARTICLE 7. REPRESENTATIONS AND COVENANTS

Section 7.1 Mutual Warranties. Each of Amgen and Company represents and warrants that:

(a) it is duly organized and validly existing under the Law of the jurisdiction of its incorporation, and has full corporate power and authority to enter into this Agreement and to carry out the provisions hereof;

(b) it is duly authorized to execute and deliver this Agreement and to perform its obligations hereunder, and the individual executing this Agreement on its behalf has been duly authorized to do so by all requisite corporate action; and

(c) this Agreement is legally binding upon it and enforceable in accordance with its terms. The execution, delivery and performance of this Agreement by it does not conflict with any agreement, instrument or understanding, oral or written, to which it is a party or by which it may be bound, nor violate any material applicable Law.

Section 7.2 Additional Amgen Warranties. Amgen warrants to Company that:

(a) As of the Signing Date, Amgen Controls the Licensed Patents and the Licensed Know-How listed on the Licensed Know-How Schedule, and is entitled to grant the licenses specified herein. Amgen has not caused any Patent Right included in the Licensed Patents to be subject to any liens or encumbrances and Amgen has not granted to any Third Party any rights or licenses under such Patent Rights or Licensed Know-How that would conflict with the licenses granted to Company hereunder. None of the Licensed Patents are in-licensed by Amgen;

(b) As of the Signing Date, Amgen has no knowledge of any claim or litigation that has been brought or threatened in writing by any Third Party alleging that (i) the Licensed Patents are invalid or unenforceable or (ii) the manufacture, sale, offer for sale or importation of the Products in the Field in the Territory infringes or misappropriates any patents or other intellectual property rights of any Third Party;

(c) As of the Signing Date, except as set forth on the Disclosure Schedule, no patent application or registration within the Licensed Patents is the subject of any pending interference, opposition, cancellation or patent protest pursuant to 37 C.F.R. § 1.291;

(d) Amgen has made available to Company true and correct copies of the following: (i) all material Regulatory Filings for the Territory; (ii) all material correspondence with Governmental Authorities with respect to such Regulatory Filings; (iii) all minutes of any material meetings, telephone conferences or discussions with Governmental Authorities with respect to such Regulatory Filings; and (iv) all final clinical trial reports, in each case with respect to the Products and to the extent in existence as of the Signing Date;

(e) Amgen is the owner of each such Regulatory Filing in the Field in the Territory;

(f) Intentionally omitted;

(g) As of the Signing Date, the copy each Pre-Existing Agreement disclosed to Company prior to the Signing Date is, but for the redactions contained therein, a true and complete copy. Amgen further represents and warrants that Company will not be bound by any provision that is redacted from such copies of any Pre-Existing Agreement; and

(h) As of the Signing Date, Amgen has no knowledge that the manufacture of Products using the Amgen Cell Lines provided under this Agreement would infringe any patents of any Third Party in a manner that would reasonably be expected to have a material adverse effect on Company's ability to Commercialize the Products on or after January 1, 2019.

Section 7.3 Disclaimer. EXCEPT AS OTHERWISE EXPRESSLY SET FORTH IN THIS ARTICLE 7 (REPRESENTATIONS), NEITHER PARTY MAKES ANY REPRESENTATIONS OR EXTENDS ANY WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY, QUALITY, FITNESS FOR A PARTICULAR PURPOSE, NONINFRINGEMENT, OR VALIDITY OF PATENT CLAIMS. NOTHING IN THIS AGREEMENT SHALL BE CONSTRUED AS A REPRESENTATION MADE OR WARRANTY GIVEN BY EITHER PARTY THAT EITHER PARTY WILL BE SUCCESSFUL IN OBTAINING ANY PATENT RIGHTS, OR THAT ANY PATENTS WILL ISSUE BASED ON A PENDING APPLICATION. WITHOUT LIMITING THE RESPECTIVE RIGHTS AND OBLIGATIONS OF THE PARTIES EXPRESSLY SET FORTH HEREIN, EACH PARTY SPECIFICALLY DISCLAIMS ANY GUARANTEE THAT THE PRODUCTS WILL BE SUCCESSFUL, IN WHOLE OR IN PART.

Section 7.4 Company Covenants. Company covenants to Amgen that:

(a) it will conduct, and will cause its Affiliates and contractors to conduct, all preclinical and clinical studies for Products and manufacturing of Products, in accordance with (i) all U.S. Laws and the Laws of the country in which such clinical studies are conducted, (ii) the known or published standards of the FDA and the Regulatory Authority in such country, and (iii) the scientific standards applicable to the conduct of such studies and activities in the United States and in such country including current good laboratory practice, current good clinical practice and current good manufacturing practice. Neither Company, nor any officer, employee or agent of Company, will make an untrue statement of a material fact to any Regulatory Authority with respect to Products (whether in any submission to such Regulatory Authority or otherwise), and none of the foregoing will knowingly fail to disclose a material fact required to be disclosed to any Regulatory Authority with respect to Products;

(b) it will, and will cause its Affiliates and contractors to, comply with all Law with respect to the commercialization of Products;

(c) it will not knowingly employ any personnel or knowingly use a contractor or consultant that has been debarred by the FDA (or subject to a similar sanction of any other Regulatory Authority), or that is subject of an FDA debarment investigation or proceeding (or similar proceeding of any other Regulatory Authority);

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(d) it shall comply with all (i) U.S. Laws prohibiting the re-export, directly or indirectly, of certain controlled U.S.-origin items without a license to parties located in certain countries or appearing on certain U.S. Government lists of restricted parties; (ii) U.S. Laws prohibiting participation in non-U.S. boycotts that the United States does not support; and (iii) U.S. Laws prohibiting the sale of products to parties from any country subject to U.S. economic sanctions or who are identified on related U.S. Government lists of restricted parties.

ARTICLE 8. INDEMNIFICATION

Section 8.1 Indemnity.

8.1.1 By Amgen. Amgen agrees to defend Company and its (and its Affiliates') directors, officers, employees and agents (the "**Company Indemnified Parties**") at Amgen's cost and expense, and will indemnify and hold Company and the other Company Indemnified Parties harmless from and against any claims, losses, costs, damages, fees or expenses (including legal fees and expenses) (collectively, "**Losses**") to the extent resulting from any Third Party claim (including product liability claims) arising out of or otherwise relating to (a) the gross negligence or willful misconduct of Amgen, or (b) the material breach of this Agreement or the representations and warranties made hereunder by Amgen; except, in each case, to the extent such Losses result from clause (a), (b), or (c) of Section 8.1.2 (By Company). In the event of any such claim against the Company Indemnified Parties by a Third Party, the foregoing indemnity obligations shall be conditioned upon (x) Company promptly notifying Amgen in writing of the claim, (y) Company granting Amgen sole management and control, at Amgen's sole expense, of the defense of the claim and/or its settlement (*provided* that Amgen shall not settle any such claim without the prior written consent of Company if such settlement does not include a complete release from liability or if such settlement would involve undertaking an obligation (including the payment of money by a Company Indemnified Party), would bind or impair a Company Indemnified Party, or includes any admission of wrongdoing or that any intellectual property or proprietary right of Company is invalid or unenforceable), and (z) at Amgen's expense, the Company Indemnified Parties cooperating with Amgen; *provided* that in the case of (x) and (z) any failure or delay in such notice or cooperation shall not excuse any obligations of Amgen except to the extent Amgen is actually prejudiced thereby. The Company Indemnified Parties may, at their option and expense, be represented in any such action or proceeding by counsel of their own choosing.

8.1.2 By Company. Company agrees to defend Amgen and its (and its Affiliates') directors, officers, employees and agents (the "**Amgen Indemnified Parties**") at Company's cost and expense, and will indemnify and hold Amgen and the other Amgen Indemnified Parties harmless from and against any Losses resulting from any Third Party claim (including product liability claims) to the extent arising out of or otherwise relating to (a) the gross negligence or willful misconduct of Company, its Affiliates, or their respective Sublicensees, (b) the material breach of this Agreement or the representations, warranties and covenants made hereunder by Company, or (c) the Exploitation of any Product by or on behalf of Company, its Affiliates, or their respective Sublicensees (including from product liability and intellectual property infringement claims); except, in each case, to the extent such Losses result from clause (a) or (b) of Section 8.1.1 (By Amgen). In the event of any such claim against the Amgen Indemnified

Parties by a Third Party, the foregoing indemnity obligations shall be conditioned upon (x) Amgen promptly notifying Company in writing of the claim, (y) Amgen granting Company sole management and control, at Company's sole expense, of the defense of the claim and/or its settlement (*provided* that Company shall not settle any such claim without the prior written consent of Amgen if such settlement does not include a complete release from liability or if such settlement would involve undertaking an obligation (including the payment of money by an Amgen Indemnified Party), would bind or impair an Amgen Indemnified Party, or includes any admission of wrongdoing or that any intellectual property or proprietary right of Amgen is invalid or unenforceable) and (z) at Company's expense, the Amgen Indemnified Parties cooperating with Company; *provided* that in the case of (x) and (z) any failure or delay in such notice or cooperation shall not excuse any obligations of Company except to the extent Company is actually prejudiced thereby. The Amgen Indemnified Parties may, at their option and expense, be represented in any such action or proceeding by counsel of their own choosing.

Section 8.2 LIMITATION OF DAMAGES. IN NO EVENT SHALL EITHER PARTY BE LIABLE HEREUNDER TO THE OTHER PARTY FOR ANY PUNITIVE, RELIANCE, INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING LOST REVENUE, LOST PROFITS, OR LOST SAVINGS) HOWEVER CAUSED AND UNDER ANY THEORY, EVEN IF IT HAS NOTICE OF THE POSSIBILITY OF SUCH DAMAGES. THE LIMITATIONS SET FORTH IN THIS SECTION 8.2 (LIMITATION OF DAMAGES) SHALL NOT APPLY WITH RESPECT TO (A) ANY BREACH OF ARTICLE 9 (CONFIDENTIALITY) OR (B) THE INTENTIONAL MISCONDUCT OF A PARTY. NOTHING IN THIS SECTION 8.2 (LIMITATION OF DAMAGES) IS INTENDED TO LIMIT OR RESTRICT THE INDEMNIFICATION RIGHTS OR OBLIGATIONS OF A PARTY UNDER THIS ARTICLE 8 (INDEMNIFICATION) WITH RESPECT TO ANY DAMAGES PAID BY THE OTHER PARTY TO A THIRD PARTY IN CONNECTION WITH A THIRD-PARTY CLAIM.

Section 8.3 Insurance. At least [*] prior to [*], Company shall at its own expense procure and maintain during the Term (and for [*] thereafter) [*] insurance coverage adequate to cover its obligations hereunder and which is/are consistent with normal business practices of prudent pharmaceutical companies. Additionally, at least [*] prior to [*], Company shall at its own expense procure and maintain during the Term (and for [*] thereafter) [*] insurance coverage adequate to cover its obligations hereunder and which is consistent with normal business practices of prudent pharmaceutical companies. Each insurance policy required by and procured by Company under this Section 8.3 (Insurance) shall [*]. Such insurance shall not be construed to create a limit of Company's liability with respect to its indemnification obligations under this Article 8 (Indemnification). Company shall provide Amgen with a certificate of insurance or other evidence of such insurance, upon request. Company shall provide Amgen with written notice at least [*] prior to the cancellation, non-renewal or a material change of or in such insurance which materially adversely affects the rights of Amgen hereunder, and [*] prior written notice of cancellation for non-payment of premiums. Company's insurance hereunder shall be primary with respect to the obligations for which Company is liable hereunder.

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ARTICLE 9. CONFIDENTIALITY

Section 9.1 Confidential Information.

9.1.1 Confidential Information. Each Party ("**Disclosing Party**") may disclose to the other Party ("**Receiving Party**"), and Receiving Party may acquire during the course and conduct of activities under this Agreement, certain proprietary or confidential information of Disclosing Party in connection with this Agreement. The term "**Confidential Information**" means (a) all Licensed Know-How, (b) all Licensed Materials, and (c) all ideas and information of any kind, whether in written, oral, graphical, machine-readable or other form, whether or not marked as confidential or proprietary, which are transferred, disclosed or made available by Disclosing Party or at the request of Receiving Party. During the Term, Amgen shall keep completely confidential all Licensed Know-How and Licensed Materials to the extent disclosure of such Confidential Information would negatively impact in any material way the Exploitation of the Products in the Territory by Company or its Affiliates or Sublicensees. For clarity, any modifications, improvements, enhancements, derivatives, or extracts of or related to the Licensed Know-How and Licensed Materials conceived or reduced to practice by or on behalf of Company, its Affiliates, or Sublicensees shall be considered Company's Confidential Information.

9.1.2 Restrictions. During the Term and for [*] thereafter, Receiving Party shall keep completely confidential all Disclosing Party's Confidential Information. Receiving Party shall not use Disclosing Party's Confidential Information except to the extent necessary to perform its obligations and exercise its rights under this Agreement. Receiving Party has the right to disclose Disclosing Party's Confidential Information without Disclosing Party's prior written consent, to the extent and only to the extent reasonably necessary, to Receiving Party's Affiliates and their employees, subcontractors, consultants or agents who have a need to know such Confidential Information in order to perform its obligations and exercise its rights under this Agreement and who are required to comply with the restrictions on use and disclosure in this Section 9.1.2 (Restrictions). Receiving Party shall use diligent efforts to cause those entities and persons to comply with the restrictions on use and disclosure in this Section 9.1.2 (Restrictions). Receiving Party assumes responsibility for those entities and persons maintaining Disclosing Party's Confidential Information in confidence and using same only for the purposes described herein.

9.1.3 Exceptions. Receiving Party's obligation of nondisclosure and the limitations upon the right to use the Disclosing Party's Confidential Information shall not apply to the extent that Receiving Party can demonstrate that the Disclosing Party's Confidential Information: (a) was known to Receiving Party or any of its Affiliates prior to the time of disclosure, as evidenced by contemporaneous written records; (b) is or becomes public knowledge through no fault or omission of Receiving Party or any of its Affiliates; (c) is obtained by Receiving Party or any of its Affiliates from a Third Party under no obligation of °confidentiality to Disclosing Party; or (d) has been independently developed by employees, subcontractors, consultants or agents of Receiving Party or any of its Affiliates without the aid, application or use of Disclosing Party's Confidential Information, as evidenced by contemporaneous written records.

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9.1.4 Permitted Disclosures. Receiving Party may disclose Disclosing Party's Confidential Information to the extent (and only to the extent) such disclosure is reasonably necessary in the following instances:

(a) in order to comply with applicable law (including any securities law or regulation or the rules of a securities exchange) or with a legal or administrative proceeding;

(b) in connection with prosecuting or defending litigation, Marketing Approvals and other regulatory filings and communications, and filing, prosecuting and enforcing Patents in connection with Receiving Party's rights and obligations pursuant to this Agreement; and

(c) in connection with exercising its rights hereunder, to its Affiliates; potential and future collaborators (including Sublicensees where Company is the Receiving Party); and permitted and potential acquirers or assignees; potential investment bankers, investors and lenders;

provided that (1) with respect to the foregoing clause (a) or (b), where reasonably possible, Receiving Party shall notify Disclosing Party of Receiving Party's intent to make any disclosure pursuant thereto sufficiently prior to making such disclosure so as to allow Disclosing Party adequate time to take whatever action it may deem appropriate to protect the confidentiality of the information to be disclosed, and (2) with respect to the foregoing clause (c), each of those named people and entities are required to comply with the restrictions on use and disclosure in Section 9.1.2 (Restrictions) (other than investment bankers, investors and lenders, which must be bound prior to disclosure by commercially reasonable obligations of confidentiality).

Section 9.2 Terms of this Agreement; Publicity.

9.2.1 Restrictions. The Parties agree that the terms of this Agreement shall be treated as Confidential Information of both Parties, and thus may be disclosed only as permitted by Section 9.1.4 (Permitted Disclosures). Except as required by law and except for the press release attached hereto as the Press Release Schedule to be issued on or after the Closing Date, each Party agrees not to issue any press release or public statement disclosing information relating to this Agreement or the Products in the Territory or the transactions contemplated hereby or the terms hereof without the prior written consent of the other Party not to be unreasonably withheld (or as such consent may be obtained in accordance with Section 9.2.2 (Review)).

9.2.2 Review. In the event either Party (the "**Issuing Party**") desires to issue a press release or other public statement disclosing information relating to this Agreement or the transactions contemplated hereby or the terms hereof, the Issuing Party shall provide the other Party (the "**Reviewing Party**") with a copy of the proposed press release or public statement (the "**Release**"). The Issuing Party shall specify with each such Release, taking into account the urgency of the matter being disclosed, a reasonable period of time within which the Receiving Party may provide any comments on such Release (but in no event less than [*] business days) and if the Receiving Party fails to provide any comments during the response period called for by the Issuing Party, the Reviewing Party shall be deemed to have consented to the issuance of such Release. If the Receiving Party provides any comments, the Parties shall consult on such Release and work in good faith to prepare a mutually acceptable Release. Either Party may

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subsequently publicly disclose any information previously contained in any Release so consented to. For the avoidance of doubt, notwithstanding anything to the contrary, Company, in its sole discretion, may (a) subject to the terms of Section 9.1 (Confidential Information), disclose information relating to Company's, its Affiliates', and Sublicensees' activities in connection with the subject matter hereunder, including information relating to research and any clinical trial conducted by Company (including in marketing or publicity materials) and any health or safety matter related to a Product and (b) disclose information relating to this Agreement or the transactions contemplated hereby to current and potential investors in and potential acquirers and Sublicensees of Company who are bound prior to disclosure by commercially reasonable obligations of confidentiality.

Section 9.3 Relationship to the Confidentiality Agreement. All "Confidential Information" disclosed or received by or on behalf of a Party under that certain Confidential Disclosure Agreement between Amgen and Kleiner Perkins Caufield & Byers, dated October 17, 2011, shall be deemed "Confidential Information" hereunder and shall be subject to the terms and conditions of this Agreement.

Section 9.4 Publications.

9.4.1 Right to Publish. Subject to the provisions of Sections 9.1 (Confidential Information), 9.2 (Terms of this Agreement; Publicity) and 9.4.2 (Review), both Parties shall have the right to publish with respect to Products in publications based in the Territory, and to make scientific presentations on Products in the Territory (*provided* that prior to any such publication or presentation by Amgen with respect to a Product in the Territory, Amgen shall obtain Company's prior written consent). Neither Party shall publish the [*] or information concerning the [*] without the prior consent of the other Party.

9.4.2 Review. Except as required by Law or court order, for any proposed publication or presentation regarding a Product in the Territory, the Party desiring to make such publication: (a) shall transmit a copy of the proposed publication for review and comment to the other Party (and any applicable licensee) at least [*] prior to the submission of such publication to a Third Party; (b) upon request of the other Party (or applicable licensee) shall remove all Confidential Information of the other Party (or applicable licensee); and (c) shall consider all reasonable comments made by the other Party (or applicable licensee).

ARTICLE 10. TERM AND TERMINATION

Section 10.1 Term. The term of this Agreement (the "**Term**") shall commence on the Signing Date, and unless terminated earlier as provided in this Article 10 (Term and Termination), shall continue in full force and effect until expiration of the last-to-expire Royalty Term for any Product in the Territory. Upon expiration of this Agreement, the licenses granted to Company by Amgen under this Agreement to Exploit Products shall be fully paid-up, royalty-free, irrevocable and non-exclusive.

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Section 10.2 Termination by Amgen.

10.2.1 Breach.

(a) Subject to Section 10.2.1(b), Amgen shall have the right to terminate this Agreement in full upon delivery of written notice to Company in the event of any material breach by Company of any terms and conditions of this Agreement; *provided* that such termination shall not be effective if such breach has been cured within [*] after written notice thereof is given by Amgen to Company specifying the nature of the alleged breach.

(b) Notwithstanding the foregoing, in the event of a good faith dispute between the Parties as to whether Company has materially breached any terms or conditions of this Agreement (a "**Dispute**"), then, except [*], (i) the Parties shall resolve the Dispute pursuant to Section 11.4 (Governing Law; Jurisdiction) (the period until the resolution of such Dispute being the "**Dispute Period**"); (ii) each Party will continue to perform its obligations under this Agreement during the Dispute Period and (iii) if the relevant judicial finder of fact ("**Finder of Fact**") determines that Company is in material breach as asserted by Amgen (a "**Breach**"), then, following such adjudication by the Finder of Fact and in lieu of any such termination by Amgen, Company shall have the right to cure (A) any payment breach by payment in full of any finally determined monetary award and (B) any other breach that [*]. For avoidance of doubt, this Section 10.2.1 shall not abrogate Amgen's right to obtain injunctive or equitable relief at any time from a court of competent jurisdiction and/or attorneys' fees in connection with any relief so granted.

10.2.2 Termination for IP Challenge. To the extent allowed by Law, Amgen shall have the right, upon written notice to Company, to terminate in full (a) this Agreement, in the event that Company or any of its Affiliates directly challenges in a legal or administrative proceeding the patentability, enforceability or validity of any Licensed Patents or Framework Patents, or (b) any Sublicensee's sublicense, in the event that such Sublicensee directly challenges in a legal or administrative proceeding the patentability, enforceability or validity of any Licensed Patents; *provided* that Amgen shall not have the right to terminate any sublicense under Section 10.2.2 (b) (Termination for IP Challenge) for any such challenge by any Sublicensee if such challenge is dismissed within [*] of Amgen's notice to Company under this Section 10.2.2 (Termination for IP Challenge) and not thereafter continued.

Section 10.3 Termination by Company.

10.3.1 Breach. Company shall have the right to terminate this Agreement in full upon delivery of written notice to Amgen in the event of any material breach by Amgen of any terms and conditions of this Agreement; *provided* that such termination shall not be effective if such breach has been cured within [*] after written notice thereof is given by Company to Amgen specifying the nature of the alleged breach.

10.3.2 Discretionary Termination. Company shall have the right to terminate this Agreement in full, or on a Product-by-Product basis, [*] after delivery of written notice to Amgen if the Board of Directors of Company concludes due to scientific, technical, regulatory or commercial reasons, including (a) safety or efficacy concerns, including adverse events of a Product, (b) concerns relating to the present or future marketability or profitability of a Product, (c) reasons related to patent coverage or (d) existing and anticipated competition, renders the Exploitation of a Product no longer commercially practicable for Company.

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Section 10.4 Termination Upon Bankruptcy. Either Party may terminate this Agreement if, at any time, the other Party shall (a) file in any court or agency pursuant to any statute or regulation of any state, country or jurisdiction, a petition in bankruptcy or insolvency or for reorganization or for an arrangement or for the appointment of a receiver or trustee of that Party or of its assets, (b) propose a written agreement of composition or extension of its debts, (c) be served with an involuntary petition against it, filed in any insolvency proceeding, and such petition has not been dismissed within [*] after the filing thereof, (d) propose or be a party to any dissolution or liquidation, (e) make an assignment for the benefit of its creditors or (f) admit in writing its inability generally to meet its obligations as they fall due in the general course.

Section 10.5 Effects of Termination. Upon termination by either Party under Sections 10.2 (Termination by Amgen), 10.3 (Termination by Company) or 10.4 (Termination Upon Bankruptcy):

(a) Company shall responsibly wind-down, in accordance with accepted pharmaceutical industry norms and ethical practices, any on-going clinical studies for the Terminated Products for which it has responsibility hereunder in which patient dosing has commenced or, if reasonably practicable and requested by Amgen, Company, its Affiliates or its Sublicensees shall complete such trials. Company shall be responsible for any costs associated with such wind-down. Amgen shall pay all costs incurred by either Party to complete such studies should Amgen request that such studies be completed.

(b) A termination of this Agreement shall [*] with respect to the Terminated Products pursuant to Section [*]; *provided* that, with respect to [*], as of the effective date of termination and [*] consistent with the terms and conditions contained herein, with [*], or [*], Company may, to the extent it is legally permitted to do so, [*] and [*] and [*].

(c) All rights and licenses granted by Amgen to Company in Article 2 (License Grant) with respect to the Terminated Products shall terminate, and Company and its Affiliates shall cease all use of Licensed Know-How and Licensed Patents related to the Terminated Products and all Exploitation of the Terminated Products, except to the extent required under Section 10.5(a).

(d) Upon Amgen's request, all Marketing Approvals and other regulatory filings and communications relating to the Terminated Products owned (in whole or in part) or otherwise controlled by Company and its Affiliates and Sublicensees, and all other documents relating to or necessary to further Exploit any Terminated Products, as such items exist as of the effective date of such termination (including all related completed and ongoing clinical studies) shall be assigned to Amgen, and Company shall provide to Amgen one (1) copy of the foregoing and all documents contained in or referenced in any such items, together with the raw and summarized data for any clinical studies (and where reasonably available, electronic copies thereof). In the event of any failure to obtain assignment, Company hereby consents and grants to Amgen the right to access and reference (without any further action required on the part of Company, whose authorization to file this consent with any Regulatory Authority is hereby granted) any such item.

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(e) Company hereby grants to Amgen and its Affiliates, and Amgen and its Affiliates shall automatically have, a [*] license, [*], under Know-How and Patent Rights that are Controlled by Company or any of its Affiliates and Sublicensees for Exploiting the Terminated Products and any improvement to any of the foregoing (such license effective only as of and after the effective date of such termination). The Patent Rights so licensed shall be subject to [*].

(f) Upon Amgen's request, Company shall assign (or, if applicable, shall cause its Affiliates or Sublicensees to assign) to Amgen all of Company's (and such Affiliates' and Sublicensees') right, title and interest in and to any registered or unregistered trademarks or internet domain names worldwide that are specific to a Terminated Product (it being understood that the foregoing shall not include any trademarks or internet domain names that contain the corporate or business name(s) of Company).

(g) Company agrees (and shall cause its Affiliates and Sublicensees as a condition of the grant of the applicable Sublicense to so agree) to fully cooperate with Amgen and its designee(s) to facilitate a smooth, orderly and prompt transition of the Exploitation of Terminated Products in the Territory to Amgen and/or its designee(s). Upon request by Amgen, and at Amgen's expense, Company shall transfer to Amgen some or all quantities of Terminated Products in its possession. If Company is, at the time of such termination of this Agreement, party to any Third Party contracts with respect to a Terminated Product, then it shall provide Amgen notice and (to the extent permitted to do so) copies thereof. Company shall assign to Amgen (and Amgen shall assume and perform) any such contracts requested by Amgen, to the extent it has the right under such contract(s) to do so (and shall use commercially reasonable efforts to obtain any required consents). In addition, Company shall, at Amgen's cost and expense, provide any cooperation reasonably requested by Amgen to ensure uninterrupted supply of Terminated Products. If Company manufactured any Terminated Product at the time of termination, then Company shall continue to provide for manufacturing of such Product for Amgen, at [*] of the fully-burdened manufacturing cost therefor (for clarity, such cost shall be paid by Amgen to Company), from the date of notice of such termination until the sooner to occur of (a) such time as Amgen is able, using commercially reasonable efforts to do so, to secure an acceptable alternative commercial manufacturing source from which sufficient quantities of Product may be procured and legally sold in the Territory and (b) [*] from the effective date of termination of this Agreement.

(h) For clarity, the terms and conditions of this Agreement shall continue in full force and effect with respect to any Product other than the Terminated Products, and the terms and conditions of the provisions listed as surviving pursuant to Section 10.6 (Survival) shall continue in full force and effect with respect to the Terminated Products.

Company shall duly execute and deliver, or caused to be duly executed and delivered, such instruments and shall do and cause to be done such activities and things, including the filings of such assignments, agreements, documents and instruments, as may be necessary under, or as Amgen may reasonably request in connection with, Amgen's rights under this Section 10.5 (Effects of Termination).

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Section 10.6 Survival. In addition to the termination consequences set forth in Section 10.5 (Effects of Termination), the following provisions shall survive termination or expiration of this Agreement: Articles 1 (Definitions), 7 (Indemnification), 8 (Confidentiality), and 10 (Miscellaneous) and Sections 2.7 (Limited Exploitation Rights), 3.3 (Milestone Payments) (with respect to milestones reached prior to such expiration or termination), 3.4 (Royalties) (with respect to sales made before such expiration or termination), 3.6 (Method of Payment; Royalty Reporting\) through 3.10 (Taxes) (inclusive) (with respect to periods with sales of Products made before such expiration or termination), 4.3 (Enforcement) through 4.5 (Recovery) (with respect to any action initiated prior to such expiration or termination), 7.3 (Disclaimer), 10.5 (Effects of Termination) and this Section 10.6 (Survival). Termination or expiration of this Agreement shall not relieve the Parties of any liability or obligation which accrued hereunder prior to the effective date of such termination or expiration nor preclude either Party from pursuing all rights and remedies it may have hereunder or at law or in equity with respect to any breach of this Agreement nor prejudice either Party's right to obtain performance of any obligation. All other rights and obligations shall terminate upon expiration of this Agreement.

ARTICLE 11. MISCELLANEOUS

Section 11.1 Entire Agreement; Amendment. This Agreement and all Schedules attached to this Agreement constitute the entire agreement between the Parties as to the subject matter hereof. All prior and contemporaneous negotiations, representations, warranties, agreements, statements, promises and understandings with respect to the subject matter of this Agreement are superseded hereby. Neither Party shall be bound by or charged with any written or oral agreements, representations, warranties, statements, promises or understandings not specifically set forth in this Agreement. No amendment, supplement or other modification to any provision of this Agreement shall be binding unless in writing and signed by both Parties.

Section 11.2 Section 365(n) of the Bankruptcy Code. All rights and licenses granted under or pursuant to any section of this Agreement are, and shall otherwise be deemed to be, for purposes of Section 365(n) of the U.S. Bankruptcy Code, licenses of rights to "intellectual property" as defined under Section 101(35A) of the U.S. Bankruptcy Code to the extent permitted thereunder. The Parties shall retain and may fully exercise all of their respective rights and elections under the U.S. Bankruptcy Code or any analogous provisions in any other country or jurisdiction. Upon the commencement of a bankruptcy proceeding by or against either Party, the Party that is not a party to such proceeding shall further be entitled to a complete duplicate of (or complete access to, as appropriate) any such intellectual property and all embodiments of such intellectual property, which, if not already in the non-subject Party's possession, shall be promptly delivered to it, unless the Party subject to the proceeding elects to continue, and continues, to perform all of its obligations under this Agreement.

Section 11.3 Independent Contractors. The relationship between Company and Amgen created by this Agreement is solely that of independent contractors. This Agreement does not create any agency, distributorship, employee-employer, partnership, joint venture or similar

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business relationship between the Parties. Neither Party is a legal representative of the other Party, and neither Party can assume or create any obligation, representation, warranty or guarantee, express or implied, on behalf of the other Party for any purpose whatsoever. Each Party shall use its own discretion and shall have complete and authoritative control over its employees and the details of performing its obligations under this Agreement.

Section 11.4 Governing Law; Jurisdiction. This Agreement and its effect are subject to and shall be construed and enforced in accordance with the law of [*], without regard to its conflicts or choice of law rules or principles, except as to any issue which depends upon the validity, scope or enforceability of any Licensed Patent, which issue shall be determined in accordance with the laws of the country in which such patent was issued. Each of the Parties hereby irrevocably and unconditionally consents to submit to the exclusive jurisdiction of the courts of [*] for any matter arising out of or relating to this Agreement and the transactions contemplated hereby, and agrees not to commence any litigation relating thereto except in such courts. Each of the Parties hereby irrevocably and unconditionally waives any objection to the laying of venue of any matter arising out of this Agreement or the transactions contemplated hereby in the courts of [*] and hereby further irrevocably and unconditionally waives and agrees not to plead or claim in any such court that any such matter brought in any such court has been brought in an inconvenient forum. The Parties agree that a final judgment in any such matter shall be conclusive and may be enforced in other jurisdictions by suits on the judgment or in any other manner provided by law. Any proceeding brought by either Party under this Agreement shall be exclusively conducted in the English language.

Section 11.5 Notice. Except as otherwise expressly set forth herein, all notices or communication required or permitted to be given by either Party hereunder shall be deemed sufficiently given if mailed by registered mail or certified mail, return receipt requested, or sent by overnight courier, such as Federal Express, to the other Party at its respective address set forth below or to such other address as one Party shall give notice of to the other from time to time hereunder. Mailed notices shall be deemed to be received on the third (3rd) business day following the date of mailing. Notices sent by overnight courier shall be deemed received the following business day.

If to Company: Santa Maria Biosciences, Inc.
c/o Kleiner Perkins Caufield & Byers
2750 Sand Hill Road
Menlo Park, CA 94025
Attn: Isaac Ciechanover, MD

If to Amgen: Amgen Inc.
One Amgen Center Drive
Thousand Oaks, CA 91320
Attn: Corporate Secretary

Section 11.6 Compliance With Law; Severability. Nothing in this Agreement shall be construed to require the commission of any act contrary to Law. If any one or more provisions of this Agreement is held to be invalid, illegal or unenforceable, the affected provisions of this

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Agreement shall be curtailed and limited only to the extent necessary to bring it within the applicable legal requirements, and the validity, legality and enforceability of the remaining provisions of this Agreement shall not in any way be affected or impaired thereby.

Section 11.7 Non-Use of Names. Amgen shall not, and shall require its Affiliates not to, use the name, trademark, logo or physical likeness of Company or any of its officers, directors or employees, or any adaptation of any of them, in any advertising, promotional or sales literature, without such Company's prior written consent. Company shall not, and shall require its Affiliates not to, use the name, trademark, logo or physical likeness of Amgen or any of its officers, directors or employees, or any adaptation of any of them, in any advertising, promotional or sales literature, without Amgen's prior written consent.

Section 11.8 Successors and Assigns. Neither this Agreement nor any of the rights or obligations created herein, except for the right to receive any remuneration hereunder, may be assigned by either Party, in whole or in part, without the prior written consent of the other Party, not to be unreasonably withheld or delayed except that either Party shall be free to assign this Agreement in connection with any merger, sale of such Party or sale of all or substantially all of the assets of the Party relating to this Agreement (a "**Sale Transaction**"), without the prior consent of the non-assigning Party; *provided* that, in the case of a Sale Transaction of Company, the assignee shall be required to assume all of Company's obligations hereunder. This Agreement shall bind and inure to the benefit of the successors and permitted assigns of the Parties hereto. Any assignment of this Agreement in contravention of this Section 11.8 (Successors and Assigns) shall be null and void.

Section 11.9 Sale Transaction or Amgen Acquisition. In the event of (x) a Sale Transaction, or (y) the acquisition by Amgen of all or substantially all of the business of a Third Party (together with any entities that were Affiliates of such Third Party immediately prior to such acquisition, an "**Amgen Acquiree**"), whether by merger, sale of stock, sale of assets or otherwise (an "**Amgen Acquisition**"), the intellectual property rights of the acquiring party in a Sale Transaction, if other than one of the Parties to this Agreement (together with any entities that were affiliates of such Third Party immediately prior to such Sale Transaction, a "**Third Party Acquirer**"), or the Amgen Acquire; as applicable, shall not be included in the technology licensed hereunder or otherwise subject to this Agreement.

Section 11.10 Waivers. A Party's consent to or waiver, express or implied, of the other Party's breach of its obligations hereunder shall not be deemed to be or construed as a consent to or waiver of any other breach of the same or any other obligations of such breaching Party. A Party's failure to complain of any act, or failure to act, by the other Party, to declare the other Party in default, to insist upon the strict performance of any obligation or condition of this Agreement or to exercise any right or remedy consequent upon a breach thereof, no matter how long such failure continues, shall not constitute a waiver by such Party of its rights hereunder, of any such breach, or of any other obligation or condition. A Party's consent in any one instance shall not limit or waive the necessity to obtain such Party's consent in any future instance and in any event no consent or waiver shall be effective for any purpose hereunder unless such consent or waiver is in writhing and signed by the Party granting such consent or waiver.

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Section 11.11 No Third Party Beneficiaries. Except as expressly provided with respect to Amgen Indemnified Parties and Company indemnified Parties in Article 8 (Indemnification) and Amgen's licensees, nothing in this Agreement shall be construed as giving any Person, other than the Parties hereto and their successors and permitted assigns, any right, remedy or claim under or in respect of this Agreement or any provision hereof.

Section 11.12 Headings; Schedules. Article and Section headings used herein are for convenient reference only, and are not a part of this Agreement. All Schedules are incorporated herein by this reference.

Section 11.13 Interpretation. Except where the context otherwise requires, wherever used, the singular shall include the plural and the plural the singular, the use of any gender shall be applicable to all genders and the word "**or**" is used in the inclusive sense (and/or). The term "**including**" as used herein shall mean including, without limiting the generality of any description preceding such term. All references to a "**business day**" or "**business days**" in this Agreement means any day other than a day which is a Saturday or Sunday or any day banks are authorized or required to be closed in the United States. The language in all parts of this Agreement shall be deemed to be the language mutually chosen by the Parties. The Parties and their counsel have cooperated in the drafting and preparation of this Agreement, and this Agreement therefore shall not be construed against any Party by virtue of its role as the drafter thereof.

Section 11.14 Counterparts. This Agreement may be executed in counterparts by a single Party, each of which when taken together shall constitute one and the same agreement, and may be executed through the use of facsimiles or electronically transmitted documents.

[Signature page follows]

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IN WITNESS WHEREOF, the Parties have executed this Agreement as of the date first set forth above.

SANTA MARIA BIOSCIENCES, INC.	AMGEN INC.
By: /s/ Isaac Chiechanover	By: /s/ Jonathan Peacock
Name: Isaac Chiechanover	Name: Jonathan Peacock
Title: President	Title: Executive Vice President and Chief Financial Officer

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Schedule

Business Plan

[Schedule begins on following page.]

[*]
[60 pages omitted]

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Schedule

Disclosure

[*]

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Schedule
Licensed Know-How

[*]

[22 pages omitted]

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Schedule

Licensed Materials

[*]

[4 pages omitted]

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Schedule

Licensed Patents

[*]

[9 pages omitted]

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Schedule
Milestones and Royalties

Milestone Payments: The Milestone Events and Milestone Payments to be made pursuant to Section 3.3 of the Agreement are as follows:

Milestone Event	Payment
Development Milestones, payable on a Product-by-Product basis	
[*]	[*]
Commercial Milestones with respect to Products	
[*]	[*]

* Notwithstanding anything to the contrary, if, [*], then this Milestone Payment shall not be payable until [*].

1. Royalties: The royalty rates payable under Section 3.4 of the Agreement with respect to Net Sales of Product(s) are as follows:

    (i) [*] on the portion of annual Net Sales for Products less than [*];

    (ii) [*] on the portion of annual Net Sales for Products between [*] and [*], inclusive; and

    (iii) [*] on the portion of annual Net Sales for Products greater than [*].

    For the avoidance of doubt, if a Product is Covered by more than one Licensed Patent, the above royalty shall be paid only once.

2. Third Party Payments. In the event that Company or any of its Affiliates or Sublicensees obtains a license under Patent Rights of a Third Party in any country in the Territory that Company or its Affiliate or Sublicensee, on the advice of patent counsel, determines, in the absence of a license thereunder, would be considered to be Infringed by the development, manufacture, use, sale, offer for sale or import of a Product sold by Company (or its Affiliate or Sublicensee) in such country (in each case, a "**Necessary Third Party License**"), then Company may deduct [*] of the royalties actually paid to such Third Party under such Necessary Third Party License with respect to sales of such Product in such country from the royalty payments owed to Amgen pursuant to Section 2 of this Milestones and Royalties Schedule with respect to Net Sales of such Product in such country.

3. No Valid Claim. In the event that any Product is not Covered by at least one (1) Valid Claim of a Licensed Patent within the Territory, then the royalty rates set forth in Section 2(b) of this Milestones and Royalties Schedule shall be reduced by [*] for such Product.

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4. Maximum Deduction. In no event, however, shall a deduction, or deductions, in the royalty rate pursuant to Section 3 of this Milestones and Royalties Schedule and Section 4 of this Milestones and Royalties Schedule, reduce the royalty rate payable by Company on Net Sales of a given Product during a given calendar quarter pursuant to Section 2 of this Milestones and Royalties Schedule by more than [*] in the aggregate.

5. Mutual Convenience of the Parties. The royalty and other payment obligations set forth hereunder have been agreed to by the Parties for the purpose of reflecting and advancing their mutual convenience, including the ease of calculating and paying royalties and other amounts to Amgen. Company hereby stipulates to the fairness and reasonableness of such royalty and other payment obligations and covenants not to allege or assert, nor to allow any of its Affiliates or Sublicensees to allege or assert, nor further to cause or support any other Third Parties to allege or assert, that any such royalty or other payment obligations are unenforceable or illegal in any way.

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Schedule

Permitted CMOs

[*]

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Schedule

Pre-Existing Agreements

[*]

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Schedule

Press Release

[Schedule begins on following page.]

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Amgen to License Assets to Atara Biotherapeutics, Kleiner Perkins Caufield & Byers' (KPCB) Newly Formed Drug Development Company

September x, 2012, Thousand Oaks, CA — Amgen (NASDAQ: AMGN) and KPCB today announced an agreement that licenses six Amgen assets to Atara Biotherapeutics, a newly formed drug development company financed by KPCB. The in-licensed assets from Amgen are in various stages of development, from preclinical to early clinical. These drugs will form the foundation of Atara's focus on developing innovative drug therapies for patients with cancer and chronic diseases, including nephrology and oncology. Financial terms of the transaction are not being disclosed.

Atara will have facilities in both the Bay Area and Thousand Oaks, Calif., where it can help broaden the biotechnology hub around Amgen. The Atara leadership team will be comprised of individuals having previous experience from both Amgen and KPCB. Amgen will have a minority equity interest in Atara, with rights to an observer seat on Atara's Board of Directors.

> "Amgen is excited to partner with KPCB, a preeminent venture capital firm, to foster a creative business model that will help advance molecules in Amgen's pipeline to treat serious illness," said Sean E. Harper, M.D., executive vice president of Research and Development at Amgen, "The creation of Atara Biotherapeutics also provides the opportunity to further foster biotechnology innovation in Amgen's headquarters' communities."
>
> "The model for Atara will enable us to build on Amgen's research to bring a promising group of therapeutics to patients with serious illnesses, enabling them to have a better quality of life," said Dr. Isaac Ciechanover, CEO Atara Biotherapeutics (former partner at KPCB).

About Kleiner Perkins

Since its founding in 1972, Kleiner Perkins Caufield & Byers has backed entrepreneurs in more than 500 ventures including AOL, Amazon.com, Citrix, Compaq, Electronic Arts, Google, Groupon, Intuit, Juniper Networks, Netscape, Sun, Symantec, Verisign, webMD and Zynga. This also includes lifesciences companies Genentech, Genomic Health, Idec and Onyx to name a few. KPCB portfolio companies employ more than 350,000 people worldwide. More than 150 of the firm's portfolio companies have gone public, and many other KPCB ventures have achieved success through mergers and acquisitions. KPCB focuses its global investments in three practice areas - digital, greentech and life sciences - and provides entrepreneurs with company-building expertise out of its offices in Silicon Valley, Beijing and Shanghai.

About Amgen

Amgen discovers, develops, manufactures and delivers innovative human therapeutics. A biotechnology pioneer since 1980, Amgen was one of the first companies to realize the new science's promise by bringing safe, effective medicines from lab to manufacturing plant to patient. Amgen therapeutics have changed the practice of medicine, helping millions of people around the world in the fight against cancer, kidney disease, rheumatoid arthritis, bone disease and other serious illnesses. With a deep and broad pipeline of potential new medicines, Amgen remains committed to advancing science to dramatically improve people's lives. To learn more about our pioneering science and vital medicines, visit http://www.ampen.com/. Follow us on http://twittercom/amgen.

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Schedule
Products

[*]

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Schedule

Quality Agreement

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QUALITY AGREEMENT

Between

[Name of Company]

Hereafter referred to as “COMPANY”

and

AMGEN Inc.

Hereafter referred to as “AMGEN”

This Quality Agreement is intended by the Parties to set forth a plan for the quality assurance groups of AMGEN and COMPANY to work in relation to the manufacture, labeling, testing, release, shipping and storage of the Product (as defined below). By signing below, the respective quality assurance representatives acknowledge and agree to the provisions of this Quality Agreement.

Agreed and accepted for:	**Agreed and accepted for:**
[NAME OF COMPANY]	**AMGEN**
By:	By:
Printed Name:	Printed Name:
Title:	Title:
Date:	Date:

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TABLE OF CONTENTS

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1. BACKGROUND INFORMATION

1.1 AMGEN Inc. (hereinafter referred to as "AMGEN") and [Company Name] (hereinafter referred to as "COMPANY") (hereinafter referred to individually as "Party" or collectively as "Parties") have entered into an Exclusive License Agreement (the "License Agreement"), dated as of [ ], 2012, and a Supply Agreement (the "Supply Agreement"), dated as of [ ], 2012, regarding AMG 745 (the "Product") for clinical use. This Quality Agreement provides the quality requirements as specified under Section 5.4 of the License Agreement and Section 2.1 of the Supply Agreement.

1.1.1 This Quality Agreement defines the quality obligations of the Parties and their respective affiliates or approved contractors, with respect to the manufacture, labeling, testing, release, and delivery of Product in accordance with the License Agreement and Supply Agreement and the quality aspects of such Product.

2. SCOPE

2.1 The provisions of this Quality Agreement supplement the provisions of the License Agreement and Supply Agreement. The terms of the License Agreement and Supply Agreement shall remain in force and effect. In the event of any conflict between the License Agreement, or Supply Agreement, and this Quality Agreement, the License Agreement and Supply Agreement shall govern over the conflict.

2.2 This Quality Agreement may be amended only by mutual written agreement of the Parties.

2.3 Exhibits to this Quality Agreement are intended to provide additional definition to the applicable topic and, as such, should be updated to reflect the current information and business process, as applicable. Amendment of the Exhibits does not require re-approval of the Quality Agreement unless the Quality Agreement itself is affected. Exhibits and all amendments of Exhibits shall be approved by mutual written agreement of the Parties.

2.4 All activities under this Quality Agreement shall be performed in compliance with cGMP regulations.

2.5 This Quality Agreement shall expire at the termination, cancellation, or expiration, as the case may be, of the License Agreement.

3. DEFINITIONS

3.1 All capitalized terms not otherwise defined in this Quality Agreement shall have the definition set forth in the License Agreement and/or Supply Agreement.

3.2 As used in this Quality Agreement, the following terms shall have the following meanings:

Certificate of Analysis (CoA)	CoA prepared for Product representing the analytical results for the material, Certificate of the accuracy of which has been certified by AMGEN. This is an approved Analysis (CoA) record provided by AMGEN for a given batch containing the analytical test results required by the specification for the material.
Certificate of Compliance (CoC)	CoC (or QADS) prepared by AMGEN for the Product representing that the Compliance Product was manufactured according to cGMP requirements.

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Disposition Manager	AMGEN Quality Assurance staff member qualified to perform the Disposition comprehensive quality assessment and make the disposition decision for a Manager specific batch of Product.
Disposition Package	Documentation set provided to COMPANY representing AMGEN batch Disposition disposition of the Product. Documents comprising the Disposition Package are provided in Exhibit B.
Drug Substance	Shall have the meaning given in the Supply Agreement.
Drug Product	The finished dosage form of AMG745 in labeled vials delivered in Drug Product accordance with License Agreement and the Supply Agreement.
Final Release	Release of Product for distribution by COMPANY in accordance with Final Release COMPANY standard operating procedures (“SOPs”).
cGMP	All applicable laws and regulations relating to current Good Manufacturing Practices, as promulgated by the United States Food and Drug cGMP Administration (FDA), and foreign equivalents thereof as promulgated by the applicable Regulatory Authority in the European Union or Canada.
Disposition Package	Documentation set provided to COMPANY representing AMGEN batch Disposition disposition of the Product. Documents comprising the Disposition Package are provided ‘in Exhibit B.
Manufacturer’s Release	Release of Product by AMGEN, according to AMGEN’s procedures and cGMP regulations.
Manufacturing Information Schedule	The information listed under the heading “Manufacturing Information” in the Licensed Know-How Schedule attached to the License Agreement.
Material Change	A material change to the Specifications or the manufacturing process for Product, or any other material changes to the Product including the analytical methods that AMGEN uses that support performance of its obligations under the License Agreement or Supply Agreement.
Nonconformance	Deviations incurred during the manufacture, testing, or storage of the Product prior to delivery to COMPANY, which were determined by AMGEN procedures to potentially impact the safety, identity, strength, potency, or quality of the Product.
Out of Specification (OOS)	An examination, measurement or test result that does not conform with pre-established specification requirements established by the relevant Party.
Product	The Drug Substance and Drug Product manufactured by AMGEN.
Quality Assurance Disposition (QAD)	A document containing the disposition decision for a specific batch of Product.
Qualified Person (QP)	Qualified Person, as defined in 2001/83 EC and 2001/20 EC; responsible for certification of any Product batch prior to its use in a European clinical study.
Recall	A “recall” or “market withdrawal” (each as defined per Section 7.3 of Title 21 (Food and Drugs) of the Code of Federal Regulations, or, with respect to a jurisdiction other than the United States, the equivalent regulations of the applicable Regulatory Authority in such jurisdiction) of Product or any lots thereof.
Reference Sample	Sample collected from the manufacture of Product for the purpose of being analyzed, should the need arise, to support significant investigations.

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Regulatory Authority	Any government administrative agency, commission or other governmental authority, body or instrumentality, or any federal, state, local, domestic or foreign governmental regulatory body.
Reprocessing	Reprocessing shall mean introducing an intermediate or active pharmaceutical ingredient, including one that does not conform to standards or specifications, back into the process and repeating a step (e.g., filtration) that is part of the established manufacturing process.
Retention Samples	A fully packaged unit from a batch of Drug Product. It is stored for identification identification purposes.
Rework	Rework shall mean subjecting an intermediate that does not conform to one Or more processing steps that are different from the established manufacturing process to obtain acceptable quality intermediate or Product.
Specifications	AMGEN approved set of analytical methods, requirements, and acceptance criteria as used to judge the identity, purity and potency of all source materials, raw materials, and finished filled Product which comprises the material, as referenced in the Specifications Schedule.
Specifications Schedule	The Specifications Schedule attached to the License Agreement.

4. RESPONSIBILITIES

4.1 Without limiting any other provision of this Quality Agreement, the Parties agree that this Quality Agreement is intended to carry out the following guiding principles:

4.1.1 The Parties' quality obligations with respect to the manufacture, labeling, testing, release, and delivery of Product are as set forth in this Quality Agreement.

4.1.1.1 The Parties acknowledge that AMGEN shall have the right to perform responsibilities hereunder through its Affiliates (as defined in the License Agreement) and contractors.

5. COMMUNICATION

5.1 AMGEN and COMPANY agree to provide verbal communication to one another, in a timely manner, as necessary or appropriate for a given issue. Both Parties also agree to follow-up and clarify promptly in writing those important verbal communications to ensure clarity of issues.

5.2 Routine verbal and written communications required herein shall be delivered to the individuals indicated in EXHIBIT A or their delegates.

5.3 Each Party must notify the other in writing of any (potential) theft, counterfeits and illegal diversion of Product manufactured by AMGEN within twenty-four (24) hours upon awareness of such events.

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6. BATCH DISPOSITION (PRODUCT RELEASE)

6.1 AMGEN Quality Responsibility

6.1.1 AMGEN shall be responsible for the Manufacturer's Release of the material to COMPANY.

6.1.2 AMGEN shall provide to COMPANY the Disposition Package for each batch of material supplied to COMPANY, upon shipment. The documents to be included in the Disposition Package are provided in Exhibit B.

6.2 COMPANY Quality Responsibility

6.2.1 COMPANY shall be solely responsible for the Final Release of the Product for distribution within the Territory.

6.2.2 COMPANY shall be deemed to have conclusively and fully accepted the Product unless COMPANY notifies AMGEN in writing of any claim to the effect that the Product received did not meet the Specifications and/or cGMP requirements, within thirty (30) days of receipt.

6.2.3 A QP authorized by COMPANY will be responsible for certification of Product for use in clinical trials in the European Union, according to the requirements set out in the European Union cGMPs.

7. QUALITY CONTROL/TESTING

7.1 Transfer and Qualification of Analytical Testing

7.1.1 The provisions of this Section 7 supplement the terms of the License Agreement and Supply Agreement relating to the know-how and scientific and technical information needed for compliance of the Product in the United States, Canada and/or the European Union.

7.1.2 Refer to the Manufacturing Information Schedule for the transfer of analytical methods from AMGEN to COMPANY.

7.1.3 As part of such transfer, AMGEN shall provide COMPANY with reference standard and non-commercial critical reagents and supporting documentation in accordance with AMGEN policies and procedures. Refer to the Manufacturing Information Schedule for the transfers of reference standard and non-commercial critical reagents.

7.2 AMGEN Testing Responsibility

7.2.1 AMGEN will conduct testing of Product according to Specifications, methods, policies and procedures as approved by AMGEN. AMGEN shall provide the Specifications to COMPANY per the Manufacturing Information Schedule.

7.2.2 Stability Testing

7.2.2.1 AMGEN will continue the initiated stability studies of the Product per the AMGEN Stability program and provide data updates as set forth in the Manufacturing Information Schedule. As soon as practical, AMGEN will notify COMPANY of any confirmed stability failure of the Product and provide periodic updates on the OOS investigation.

7.2.2.2 AMGEN will be responsible for assigning a Product expiration date per AMGEN' s Stability program requirements.

7.3 COMPANY Testing Responsibility

7.3.1 Batch release documents will be evaluated by COMPANY upon receipt for conformance to Specifications and applicable cGMP requirements. COMPANY will not be performing additional testing to the AMGEN released batches.

8. REFERENCE SAMPLES

8.1 AMGEN shall retain Reference Samples for each manufactured batch of Product released to COMPANY per AMGEN established procedures.

8.2 The amount of samples collected will be in compliance with AMGEN policies and procedures and applicable Law.

9. RETENTION SAMPLES

9.1 COMPANY is responsible for retaining Retention Samples for each packaged batch of Product released for clinical distribution per established COMPANY procedures and applicable Law.

10. LABEL APPROVAL

10.1 Label Creation and Application

10.1.1 AMGEN will be responsible for labeling of Product that will be distributed to COMPANY according to AMGEN procedures. The label will include the following information: cautionary statement, Amgen artwork number, manufacturing date and drug product batch number.

11. RECEIVING, SHIPPING, STORAGE and DESTRUCTION

11.1 AMGEN shall make Product available for shipment to COMPANY in an appropriate manner that will assure the stability of the Product during shipment, using defined, qualified packaging configurations.

11.2 AMGEN shall ship labeled Product to COMPANY per AMGEN policies and procedures.

11.3 Upon receipt, COMPANY is responsible for reviewing tracking data, inspecting security seals and labels for evidence of tamper, and performing reconciliation of Product upon receipt of shipment per COMPANY procedures. COMPANY shall notify AMGEN within two (2) business days of becoming aware of any discrepancies.

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11.3.1 AMGEN and COMPANY will jointly investigate any discrepancies within AMGEN's defined quality systems.

11.4 COMPANY is responsible for reviewing shipping data such as temperature recording data and storage conditions upon receipt of shipment.

11.5 COMPANY is responsible for adequate storage of the Product upon receipt according to the storage requirements specified in the Specifications.

11.6 COMPANY shall be responsible for the destruction of any unused Product and material in accordance with applicable Law.

11.7 Unused cGMP materials including excipients, raw material, primary packaging components, product contacting material (e.g. resin) will be destroyed and reconciled by AMGEN per AMGEN procedures.

12. CHANGE CONTROL

12.1 Changes by AMGEN

12.1.1 AMGEN shall notify COMPANY of AMGEN's intention to implement any Material Change. The notification of such Material Change and the details of such Material Change shall be provided to COMPANY by AMGEN according to EXHIBIT C.

12.1.1.1 COMPANY's QA will respond to such notification for a Material Change within two (2) business days of receipt.

12.2 Notwithstanding anything to the contrary in this Section 12, AMGEN shall have the right to immediately make any change required to protect patient safety or as required by applicable Law and shall give COMPANY prompt written notice thereof.

13. INVESTIGATIONS OF NONCONFORMANCES, DISCREPANCIES (POST DISTRIBUTION NC'S)

13.1 If a Nonconformance, as solely determined by AMGEN, is identified after a Product batch has been shipped to COMPANY, AMGEN shall inform COMPANY as soon as reasonably possible of such Nonconformance.

13.2 AMGEN will provide support, as necessary and reasonable, to enable COMPANY to comply with applicable regulatory reporting requirements that may result from the occurrence of Nonconformances.

14. VISITS, AUDITS AND INSPECTIONS

14.1 Person-in-Plants

14.1.1 Neither Party shall have the right to have a person-in-plant in the other Party's facilities to observe operations and documentations.

14.2 For Cause Audit by COMPANY

14.2.1.1 Upon the request of COMPANY and approval by AMGEN, AMGEN shall permit COMPANY to conduct a "For Cause" audit during the Term in the case of a quality or regulatory event, which events may include recall of Product in the Territory.

14.2.1.2 Such "For Cause" audits require prior written request by COMPANY and shall be conducted during normal AMGEN business hours. The scope, agenda, and timeline for such audit must be approved by AMGEN prior to conducting the audit. The written notification must clearly state the scope of the audit and regulatory standards to be used to conduct the audit.

14.2.2 Audit Findings

14.2.2.1 At COMPANY's or AMGEN's request, an exit meeting shall be held with COMPANY and its representatives and AMGEN and its representatives to discuss audit findings, if any. COMPANY shall provide AMGEN with a copy of the audit report within thirty (30) calendar days upon completion of the audit. For those findings that AMGEN determines in good faith may materially affect AMGEN's ability to perform the Services, AMGEN shall issue a written response to COMPANY's report within thirty (30) days of AMGEN's receipt of such report. AMGEN's response shall identify the timelines and approach for addressing COMPANY's findings.

14.3 Regulatory Agency Inspections

14.3.1 COMPANY shall notify AMGEN within twenty-four (24) hours upon notification by any Regulatory Authority of any intended inspection of AMGEN's facilities or records relating to the manufacturing, testing, and storage of the Product.

14.3.2 AMGEN will be solely responsible for hosting and managing regulatory inspections at its facilities.

14.3.3 COMPANY will have the right to review and comment on AMGEN's proposed response to observations raised by the Regulatory Authorities relating to the Product and AMGEN shall consider such comments in good faith. AMGEN shall provide COMPANY with a copy of the final response after submission to any Regulatory Authorities.

14.3.6 AMGEN will inform COMPANY of any critical Regulatory Authority inspection observations not directly relevant to the Product where it can reasonably be assumed the observation impacts upon the Services or Product provided to COMPANY.

15. DISPUTE RESOLUTION

15.1 Disputes relating to non-compliance or nonconformance of Product with the Specifications shall be governed by the terms set forth in Section 11.4 of the License Agreement.

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16. CUSTOMER COMPLAINTS

16.1 COMPANY shall notify AMGEN of any complaints related to the manufacturing processes of the Product supplied by AMGEN that reasonably require an investigation under applicable Law or current practices within one (1) business day after COMPANY first becomes aware of such information.

16.2 COMPANY will use commercially reasonable efforts to provide AMGEN with information and complaint samples, or if such samples are not available, images of defects in Product, including a reasonable failure description, in order to permit proper and timely complaint investigation specifically for the corresponding defect. Upon receipt of COMPANY's investigation request, AMGEN shall perform an investigation into the root cause of the problem according to AMGEN's policies and procedures, and provide an investigation update within forty-five (45) calendar days following receipt of such notification.

16.3 Complaint investigation requests and results shall be directly communicated between COMPANY and AMGEN complaint representatives. A list of contacts shall be provided to each Party and updated in writing by each Party within a reasonable period of time after any Party changes its contact(s).

17. REPROCESSING AND REWORK

17.1 AMGEN will not conduct any Reprocessing or Reworking of materials of Product without prior approval by COMPANY.

18. RECALLS AND VOLUNTARY WITHDRAWALS

18.1 COMPANY shall have the sole right to control a Recall of the Product in the Field in the Territory; *provided* that COMPANY shall not take any action with respect to any Recall in the Field in the Territory without first notifying AMGEN and meeting (in person, by telephone or otherwise, as mutually agreed) with AMGEN (and, if so requested by AMGEN, Japan Licensee) to discuss the circumstances of such potential Recall and to consider appropriate courses of action provided that the foregoing shall not limit COMPANY's obligations in relation to Recalls under any applicable Law and COMPANY shall be entitled to take action in relation to a Recall without first notifying AMGEN where it considers such action is reasonably necessary to be taken in a time-frame that does not reasonably permit such notification (in which case it shall provide such notification promptly thereafter). COMPANY shall maintain complete and accurate records of any such Recall for such periods as may be required by Law, but in any event for no less than fifteen (15) years. AMGEN (and its licensees) shall have the sole right to control the handling of any Recall in Japan.

19. RESPONSIBLE PERSONS: CONTACT INFORMATION

19.1 The individuals listed in EXHIBIT A shall be the key points of contact between AMGEN and COMPANY relating to the rights and obligations of the Parties in this Quality Agreement.

20. GENERAL

20.1 The provisions of Sections 11.3 through 11.8 (inclusive) and 11.10 through 11.14 (inclusive) of the License Agreement are incorporated herein by reference and apply hereto *mutatis mutandis*.

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EXHIBIT A
Responsible Persons and Contact Information

COMPANY

Name	Email Address	Contact Number	Responsibility

AMGEN

Name	Email Address	Contact Number	Responsibility
Daniel Armstrong			Senior Manager, Alliance Management
Cylia Chen			Specialist, International Quality

Exhibit A Version Date: _____

Agreed and accepted for:

[COMPANY NAME]

By:
Printed
Name:

Title:

Date:

Agreed and accepted for:

AMGEN

By:
Printed
Name:

Title:

Date:

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

EXHIBIT B
AMGEN Disposition Package

The following documents are to comprise the AMGEN Disposition Package to support the release of each Product batch to COMPANY:

General	Nonconformance List and Summary for cell banking, Drug Substance and Drug Product (Report includes only 1ot-tied nonconformances deemed by AMGEN to have a potential Nonconformance the safety, identity, strength, potency, or quality of the Product, according to established AMGEN procedures.
Drug substance manufacture	Core batch documentation for each clinical batch, including Expansion/cell culture Harvest Purification Preparation of UF/DF buffers Formulation and Final Filtration CoC/QAD, CoA
Drug Product Manufacture	Batch documentation for each clinical batch, including Sterile filtration Filling Capping and Inspection CoC, CoA

Exhibit B Version Date: _____

Agreed and accepted for:	**Agreed and accepted for:**
[COMPANY NAME]	**AMGEN**
By: Printed Name:	By: Printed Name:
Title:	Title:
Date:	Date:

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

EXHIBIT C
Change Control Business Process

SOP-013477, *Amgen's Partner Change Notification Process*, governs the process by which AMGEN identifies and notifies COMPANY of changes as required per the Quality Agreement. This procedure leverages AMGEN's existing change control.

AMGEN Quality point of contact is responsible for screening changes for impact to COMPANY, notifying COMPANY of the change and recording COMPANY's assessment in AMGEN's change control management system. COMPANY is notified by the AMGEN Quality point of contact of a change through the use of a controlled form FORM-022482, *Change Notification.* The Change Notification will provide COMPANY with all relevant information regarding the proposed change thereby allowing COMPANY to fully assess the change and the impact of the change to COMPANY, including any applicable Product regulatory filing(s). COMPANY must provide a response to the change using this same form within two (2) business days from the date of receipt by COMPANY of such notification.

Exhibit C Version Date: _____

Agreed and accepted for:	**Agreed and accepted for:**
[COMPANY NAME]	**AMGEN**
By: Printed Name:	By: Printed Name:
Title:	Title:
Date:	Date:

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Exhibit 10.22

AMENDMENT NO. 1
TO THE
EXCLUSIVE LICENSE AGREEMENT

This **AMENDMENT NO.1 TO THE EXCLUSIVE LICENSE AGREEMENT** (this "***Amendment***"), dated as of October 22, 2012 (the "***Amendment Effective Date***"), is made by and between **AMGEN INC.**, a Delaware corporation having an address of One Amgen Center Drive, Thousand Oaks, California 91320-1799 ("***Amgen***"), and **SANTA MARIA BIOTHERAPEUTICS, INC.,** a Delaware corporation ("***Licensee***").

WHEREAS, Amgen and Licensee entered into that certain Exclusive License Agreement, dated as of September 7, 2012 (the "***Agreement***"), pursuant to which Licensee received certain rights to develop and commercialize the Product (as defined in the Agreement);

WHEREAS, Amgen and Licensee wish to update certain portions of the Agreement.

NOW, THEREFORE, in consideration of the mutual promises and covenants hereinafter set forth, the Parties hereto agree to amend the Agreement as follows:

ARTICLE 1 - AMENDMENT

Capitalized terms used in this Amendment and not otherwise defined herein shall have the meanings ascribed to such terms in the Agreement.

1.1 **Correction of Licensee Name**. All references in the Agreement to "Santa Maria Biosciences" are hereby amended to refer instead to "Santa Maria Biotherapeutics".

1.2 **Addition of Specifications Schedule**. A new schedule entitled "Specifications" shall be appended to the Agreement as follows:

Schedule
Specifications

AMG 434 Specifications

[*]	[*]

1.3 **Amendment to Section 1.2 of Licensed Know-How Schedule (Discovery Research).** The following shall be added at the end of the current Section 1.2:

[*]

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

1.4 **Amendment to Section 1.3 of Licensed Know-How Schedule (Research Analytical Assays, Methods and Materials)**. The following tables shall be appended to the end of the Section under the heading "Additional Materials":

Material/ Reagent	Lit No./Batch ID	Expiration Date	Amount Provided
[*]	[*]	[*]	[*]

Sample Type	Lot #	Condition	Inventory
[*]	[*]	[*]	[*]

1.5 **Amendment of Section 1.8 of Licensed Know-How Schedule (Pending Licensed Know-How).** Section 1.8 of the Licensed Know-How Schedule shall be replaced in its entirety with the following: "[Section intentionally left blank.]"

1.6 **Amendment of Press Release Schedule**. The Press Release Schedule shall be replaced in its entirety with the revised press release attached to this Amendment as Schedule 1.

ARTICLE 2 - REFERENCE TO AND EFFECT ON THE AGREEMENT

2.1 **Reference to Agreement**. Upon and after the effectiveness of this Amendment, each reference in the Agreement to "this Agreement", "hereunder", "hereof" or words of like import referring to the Agreement shall mean and be a reference to the Agreement as modified and amended hereby.

2.2 **Effectiveness of Amendment**. Upon execution and delivery of this Amendment by both Parties, the amendments set forth above shall be effective as of the Amendment Effective Date. Except as specifically amended above, the Agreement is and shall continue to be in full force and effect and is hereby in all respects ratified and confirmed and shall constitute the legal, valid, binding and enforceable obligations of the Parties.

2.3 **No Waiver**. The execution, delivery and effectiveness of this Amendment shall not operate as a waiver of any right, power or remedy of either Party under the Agreement, nor constitute a waiver of any provision of the Agreement.

ARTICLE 3 - MISCELLANEOUS

3.1 **Governing Law**. This Amendment shall be governed by and construed in accordance with the laws of [*], as applied to agreements executed and performed entirely within [*], without regard to any applicable principles of conflicts of law. Each of the Parties hereby irrevocably and unconditionally consents to the exclusive jurisdiction of the courts of [*] for any matter arising out of or relating to this Amendment and the transactions contemplated hereby.

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

3.2 **Headings**. The heading for each article and section in this Amendment has been inserted for convenience of reference only and is not intended to limit or expand on the meaning of the language contained in the particular article or section.

3.3 **Counterparts**. This Amendment may be executed in two (2) or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

[Signature page follows]

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

IN WITNESS THEREOF, duly authorized representatives of the Parties hereto have executed this Amendment as of the date first set forth above.

Santa Maria Biotherapeutics, Inc.

By: /s/ Isaac Ciechanover
Name: Isaac Ciechanover
Title: CEO

Amgen Inc.

By: /s/ Jonathan Peacock
Name: Jonathan Peacock
Title: Executive Vice President & CFO

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Schedule 1

Revised Press Release

Amgen and KPCB Partner to Create Atara Biotherapeutics

AMGEN AND KLEINER PERKINS CAUFIELD & BYERS PARTNER TO
CREATE NEW SPIN-OUT BIOTECH COMPANY

Amgen to License Pipeline Assets to Newly Formed Company

THOUSAND OAKS, Calif. and MENLO PARK, Calif. (Oct. 25, 2012) – Amgen and Kleiner Perkins Caufield & Byers (KPCB) today announced the formation of Atara Biotherapeutics, (**www.atarabio.com**), a new drug development company with a focus on innovative therapies for patients with chronic diseases in therapeutic areas including nephrology and oncology. Atara Biotherapeutics will have licenses to six Amgen assets, which are in various stages of development, ranging from preclinical to Phase 1. Financial terms of the transaction are not being disclosed.

Atara Biotherapeutics will be financed initially by KPCB, and Isaac Ciechanover, M.D., a former partner at KPCB, will serve as the president and chief executive officer. Amgen will have a minority equity interest in Atara Biotherapeutics.

“Amgen is excited to partner with KPCB to help advance molecules in Amgen’s pipeline that have the potential to treat serious illnesses,” said Sean E. Harper, M.D., executive vice president of Research and Development at Amgen. “With facilities in both the Bay Area and near Amgen’s Thousand Oaks campus, Atara Biotherapeutics will provide the opportunity to further foster biotechnology innovation in Amgen’s communities.”

“We look forward to building on Amgen’s research to bring a promising group of therapeutics to patients with serious illnesses,” said Ciechanover.

About Amgen

Amgen discovers, develops, manufactures and delivers innovative human therapeutics.

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A biotechnology pioneer since 1980, Amgen was one of the first companies to realize the new science's promise by bringing safe and effective medicines from lab to manufacturing plant to patient. Amgen therapeutics have changed the practice of medicine, helping millions of people around the world in the fight against cancer, kidney disease, rheumatoid arthritis, bone disease and other serious illnesses. With a deep and broad pipeline of potential new medicines, Amgen remains committed to advancing science to dramatically improve people's lives. To learn more about our pioneering science and our vital medicines, visit **www.amgen.com**. Follow us on **www.twitter.com/amgen**.

About Kleiner Perkins Kleiner Perkins Caufield & Byers (KPCB) has backed entrepreneurs in more than 500 ventures leading to 150 IPOs, 350,000 jobs and a deep strategic network. The firm has helped build pioneering companies like Align, Amazon, Electronic Arts, Genentech, Genomic Health, Google, Intuit, Juniper Networks, Netscape, Symantec, VeriSign and WebMD. KPCB partners serve on the boards of Amazon, Apple, Bloom Energy, Flipboard, Foundation Medicine, Google, Hewlett-Packard, Nest, Square, Tesaro and Zynga, among others. KPCB accelerates the success of entrepreneurs with a team of partners delivering company-building services including strategy, operational scaling, recruiting, business development and product delivery. The firm invests in all stages from seed and incubation to growth companies. KPCB operates from offices in Menlo Park, San Francisco, Shanghai and Beijing. **http://www.kpcb.com**.

Forward-Looking Statements This news release contains forward-looking statements that involve significant risks and uncertainties, including those discussed below and others that can be found in Amgen's Form 10-K for the year ended Dec. 31, 2011, and in its periodic reports on Form 10-Q and Form 8-K. Amgen is providing this information as of the date of this news release and does not undertake any obligation to update any forward-looking statements contained in this document as a result of new information, future events or otherwise.

No forward-looking statement can be guaranteed and actual results may differ materially from those Amgen projects. Amgen's results may be affected by Amgen's ability to successfully market both new and existing products domestically and internationally, clinical and regulatory developments (domestic or foreign) involving current and future products, sales growth of recently launched products, competition from other products (domestic or foreign), difficulties or delays in manufacturing its products. In addition, sales of Amgen products are affected by reimbursement policies imposed by third-party payors, including governments, private insurance plans and managed care providers and may be affected by regulatory, clinical and guideline developments and domestic and international trends toward managed care and healthcare cost containment as well as U.S. legislation affecting pharmaceutical pricing and reimbursement. Government and others' regulations and reimbursement policies may affect the development, usage and pricing of Amgen products. Furthermore, Amgen's research, testing, pricing, marketing and other operations are subject to extensive regulation by domestic and foreign government regulatory authorities. Amgen or others could identify safety, side effects or manufacturing problems with Amgen products after they are on the market. Amgen's business may be impacted by government investigations, litigation and products liability claims. Further, while Amgen routinely obtains patents for its products and technology, the protection offered by its patents and patent applications may be challenged, invalidated or circumvented by its competitors. Amgen depends on third parties for a significant portion of its manufacturing capacity for the supply of certain of its current and future products and limits on supply may constrain sales of certain of its current products and product candidate development. In addition, Amgen competes with other companies with respect to some of its marketed products as well as for the discovery and development of new products. Discovery or identification of new product candidates cannot be guaranteed and movement from concept to product is uncertain; consequently, there can be no guarantee that any particular product candidate will be successful and become a commercial product. Further, some raw materials, medical devices and component parts for Amgen products are supplied by sole third-party suppliers. Amgen's business performance could affect or limit the ability of its Board of Directors to declare a dividend or its ability to pay a dividend or repurchase its common stock.

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Exhibit 10.23

AMENDMENT NO. 2
TO THE
EXCLUSIVE LICENSE AGREEMENT

This **AMENDMENT NO. 2 TO THE EXCLUSIVE LICENSE AGREEMENT** (this "***Amendment***"), dated as of July 29, 2013 (the "***Amendment Effective Date***"), is made by and between **AMGEN INC.**, a Delaware corporation having an address of One Amgen Center Drive, Thousand Oaks, California 91320-1799 ("***Amgen***"), and **SANTA MARIA BIOTHERAPEUTICS, INC.**, a Delaware corporation having an address of 3260 Bayshore Blvd, Brisbane, California 94005 ("***Licensee***").

WHEREAS, Amgen and Licensee entered into that certain Exclusive License Agreement, dated as of September 7, 2012 and amended as of October 22, 2012 (the "***Agreement***"), pursuant to which Licensee received certain rights to develop and commercialize the Products (as defined in the Agreement);

WHEREAS, Amgen and Licensee wish to update certain portions of the Agreement.

NOW, THEREFORE, in consideration of the mutual promises and covenants hereinafter set forth, the Parties hereto agree to amend the Agreement as follows:

ARTICLE 1 - AMENDMENT

Capitalized terms used in this Amendment and not otherwise defined herein shall have the meanings ascribed to such terms in the Agreement.

1.1 Amendment of Section 1. A new defined term will be added, in the appropriate alphabetical order, as follows: "**Drug Substance Intermediate**" means, with respect to the Product AMG 434, the [*], produced by Amgen in accordance with cGMP.

1.2 Amendment of Section 1. A new defined term will be added, in the appropriate alphabetical order, as follows: "**DSI Lots**" means, with respect to the Product AMG 434, the two (2) lots of Drug Substance Intermediate being provided by Amgen to Company hereunder as part of the Licensed Materials, each a "DSI Lot".

1.3 Amendment of Section 2.4.3. The second sentence of Section 2.4.3 shall be deleted in its entirety and replaced with the following: "Other than the DSI Lots, no such materials shall be used in any human application, including any clinical trial."

1.4 Amendment of Section 7.2. The words "Intentionally omitted;" in Section 7.2 (f) shall be deleted and replaced with the following: "The DSI Lots provided to Company pursuant to this Agreement and the Quality Agreement, shall, as of the date each such DSI Lot is delivered to Company as set forth herein, have been manufactured, packaged, stored and labeled (as applicable) in accordance with cGMP and the specifications set forth in the Specifications Schedule;"

ARTICLE 2 - REFERENCE TO AND EFFECT ON THE AGREEMENT

2.1 **Reference to Agreement**. Upon and after the effectiveness of this Amendment, each reference in the Agreement to "this Agreement", "hereunder", "hereof" or words of like import referring to the Agreement shall mean and be a reference to the Agreement as modified and amended hereby.

2.2 **Effectiveness of Amendment**. Upon execution and delivery of this Amendment by both Parties, the amendments set forth above shall be effective as of the Amendment Effective Date. Except as specifically amended above, the Agreement is and shall continue to be in full force and effect and is hereby in all respects ratified and confirmed and shall constitute the legal, valid, binding and enforceable obligations of the Parties.

2.3 **No Waiver**. The execution, delivery and effectiveness of this Amendment shall not operate as a waiver of any right, power or remedy of either Party under the Agreement, nor constitute a waiver of any provision of the Agreement.

ARTICLE 3 - – MISCELLANEOUS

3.1 **Governing Law**. This Amendment shall be governed by and construed in accordance with the laws of [*], as applied to agreements executed and performed entirely within [*], without regard to any applicable principles of conflicts of law. Each of the Parties hereby irrevocably and unconditionally consents to the exclusive jurisdiction of the courts of [*] for any matter arising out of or relating to this Amendment and the transactions contemplated hereby.

3.2 **Headings**. The heading for each article and section in this Amendment has been inserted for convenience of reference only and is not intended to limit or expand on the meaning of the language contained in the particular article or section.

3.3 **Counterparts**. This Amendment may be executed in two (2) or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

[Signature page follows]

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

IN WITNESS THEREOF, duly authorized representatives of the Parties hereto have executed this Amendment as of the date first set forth above.

SANTA MARIA BIOTHERAPEUTICS, INC.		**AMGEN INC.**	
By:	/s/ Isaac Ciechanover	By:	/s/ William Rich
Name:	Isaac Ciechanover	Name:	William Rich
Title:	CEO and President	Title:	Vice President, International Supply Chain

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Exhibit 10.24

AMENDMENT NO. 3
TO THE
EXCLUSIVE LICENSE AGREEMENT

This **Amendment No. 3 to the Exclusive License Agreement** (this "***Amendment***"), dated as of April 4, 2014 (the "***Amendment Effective Date***"), is made by and between **Amgen Inc.**, a Delaware corporation having an address of One Amgen Center Drive, Thousand Oaks, California 91320-1799 ("***Amgen***"), and **Santa Maria Biotherapeutics, Inc.**, a Delaware corporation having an address of 3260 Bayshore Blvd, Brisbane, California 94005 ("***Licensee***").

WHEREAS, Amgen and Licensee entered into that certain Exclusive License Agreement, dated as of September 7, 2012 and amended as of October 22, 2012 and July 29, 2013 (the "***Agreement***"), pursuant to which Licensee received certain rights to develop and commercialize the Products (as defined in the Agreement);

WHEREAS, Amgen and Licensee wish to update certain portions of the Agreement.

NOW, THEREFORE, in consideration of the mutual promises and covenants hereinafter set forth, the Parties hereto agree to amend the Agreement as follows:

ARTICLE 1 - AMENDMENT

Capitalized terms used in this Amendment and not otherwise defined herein shall have the meanings ascribed to such terms in the Agreement.

1.1 **Amendment of Section 1.** The following proviso will be added to the end of the definition of **"Licensed Know-How"**: ; provided that, [*].

1.2 **Amendment of Licensed Know-How Schedule.** Section 1.6 of the Licensed Know-How Schedule to the Agreeement is hereby amended and restated in its entirety as set forth on Schedule 1 to this Amendment.

ARTICLE 2 – REFERENCE TO AND EFFECT ON THE AGREEMENT

2.1 **Reference to Agreement.** Upon and after the effectiveness of this Amendment, each reference in the Agreement to "this Agreement", "hereunder", "hereof" or words of like import referring to the Agreement shall mean and be a reference to the Agreement as modified and amended hereby.

2.2 **Effectiveness of Amendment.** Upon execution and delivery of this Amendment by both Parties, the amendments set forth above shall be effective as of the Amendment Effective Date. Except as specifically amended above, the Agreement is and shall continue to be in full force and effect and is hereby in all respects ratified and confirmed and shall constitute the legal, valid, binding and enforceable obligations of the Parties.

2.3 **No Waiver.** The execution, delivery and effectiveness of this Amendment shall not operate as a waiver of any right, power or remedy of either Party under the Agreement, nor constitute a waiver of any provision of the Agreement.

ARTICLE 3 – MISCELLANEOUS

3.1 **Governing Law.** This Amendment shall be governed by and construed in accordance with the laws of [*], as applied to agreements executed and performed entirely within [*], without regard to any applicable principles of conflicts of law. Each of the Parties hereby irrevocably and unconditionally consents to the exclusive jurisdiction of the courts of [*] for any matter arising out of or relating to this Amendment and the transactions contemplated hereby.

3.2 **Headings.** The heading for each article and section in this Amendment has been inserted for convenience of reference only and is not intended to limit or expand on the meaning of the language contained in the particular article or section.

3.3 **Counterparts.** This Amendment may be executed in two (2) or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

[Signature page follows]

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

IN WITNESS THEREOF, duly authorized representatives of the Parties hereto have executed this Amendment as of the date first set forth above.

SANTA MARIA BIOTHERAPEUTICS, INC.		**AMGEN INC.**	
By:	/s/ Isaac Ciechanover	By:	/s/ William Rich
Name:	Isaac Ciechanover	Name:	William Rich
Title:	CEO	Title:	Vice President, International Supply Chain

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Schedule 1 to Amendment No. 3 to the Exclusive License Agreement

[*]

[*] = Certain confidential information contained in this document, marked by brackets, has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

Exhibit 10.25

OFFICELEASE

BASIC LEASE INFORMATION

Date: March 12, 2014

Landlord: Freeway Properties III, a California limited partnership.

Tenant: Atara Biotherapeutics, Inc., a Delaware Corporation.

Section l(a)—Building: 2659 Townsgate Road, Westlake Village, California.

Section l(b)—Premises: Suite 236, containing 1,450 square feet of Rentable Area located on the second (2nd) floor of the Building.

Section l(c)—Base Year: 2013

Section l(j)—Tenant's Percentage Share: point twenty-three percent (.23%).

Section 2—Term: Thirteen (13) months.

Section 2—Commencement Date: October 1, 2013.

Section 3—Base Rent: Three thousand, one hundred, ninety and 00/100 dollars ($3,190.00) per month, modified gross.

Section 3(g)—Escalations to Base Rent: Three percent (3%) increase on each twelve (12) month anniversary of the Commencement Date during the Term and any extension and/or renewal thereof.

Section 6 (b)—Tenant will be responsible for their suite specific janitorial.

Section 29—Security Deposit: Three thousand, one hundred, ninety dollars and 00/100 ($3,190.00).

Section 31—Landlord's and Tenant's Address for Notices:

Landlord:

c/o The Johnston Group
5137 Clareton Drive, Suite 100
Agoura Hills, Ca 91301
Attn: Mr. Jeff Johnston, President

Tenant:
Atara Biotherapeutics, Inc.
Westlake Corporate Center
2659 Townsgate Road, Suite 236
Westlake Village, CA 91361

With a copy to:
Kenneth S. Fields, Esq.
Greenberg Glusker Fields Claman &
Machtinger LLP
1900 Avenue of the Stars, 21st Floor
Los Angeles, CA 90067

Section 34—Brokers: J.G. Real Estate for Landlord.

Section 35—Parking: Four (4) non-exclusive surface parking spaces (except as provided in Section 35) per each one thousand square feet of Usable Area contained in the Premises (prorated and rounded to the nearest whole number to the extent Usable Area is not evenly divisible by 1,000).

Section 38—Guarantor: None.

Section 39—Exhibits:

Exhibit "A"—Site Plan of Project
Exhibit "B"—Floor Plan of Premises
Exhibit "C"—Improvement of the Premises
Exhibit "D"—Rules and Regulations

This Basic Lease Information shall be a part of this Lease, provided that in the event of any conflict between any Basic Lease Information and the provisions contained in the body of this Lease, the latter shall control.

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OFFICE LEASE

THIS OFFICE LEASE (this "Lease"), dated August 12, 2013 for purposes of reference only, is made and entered into by and between Freeway Properties III, a California limited partnership ("Landlord") and Atara Biotherapeutics, Inc., a Delaware Corporation ("Tenant").

WITNESSETH:

Landlord hereby leases to Tenant, and Tenant hereby leases from Landlord the "Premises" described in Section l(b) below for the "Term" and subject to the terms, covenants, agreements and conditions hereinafter set forth, to each and all of which Landlord and Tenant hereby mutually agree.

1. Definitions. Unless the context otherwise specifies or requires. The following terms shall have the meanings herein specified:

(a) The term "Building" shall mean the building specified in the Basic Lease Information located in an unincorporated area within the County of Ventura, and having a postal address within Westlake Village, California. References in this Lease to the Building shall be deemed to mean the Building or any portion thereof, if the context so requires. The term "Project" shall mean that certain commercial project generally depicted on Exhibit "A" attached hereto, including, without limitation, the Building and other buildings, "Common Areas" (as hereinafter defined), the land upon which the Building, such other buildings and the Common Areas are located, and, at Landlord's discretion, such additional real property, areas, land, buildings or other improvements as may from time to time be hereafter added to the Project. References in this Lease to the Project shall be deemed to mean the Project or any portion thereof, as the same exists from time to time, if the context so requires. The depiction of the Project on Exhibit "A" does not constitute a representation, covenant or warranty of any kind by Landlord, and Landlord and/or any owner of all or any part of the Project reserve the right from time to time to change the size, layout and dimensions of the Project or any of the buildings therein, the parking areas, and/or identity and type of use of other tenants. Landlord and/or any owner of all or any portion of the Project shall have the right to convey its ownership of all or any part of the Project to one or more third parties, and thereafter the third party shall have the right to remove such conveyed portion from the definition of "Project" set forth in this Lease.

(b) The term "Premises" shall mean the suite within the Building, containing the approximate square footage, and located on the floor(s), specified in the Basic Lease Information, which is shown as cross-hatched on the floor plan(s) attached hereto as Exhibit "B". References in this Lease to the Premises shall be deemed to mean the Premises or any portion thereof, if the context so requires.

(c) The term "Base Year" shall mean the calendar year specified in the Basic Lease Information as the Base Year.

(d) The term "Operating Expenses" shall mean all costs of ownership, management, operation, maintenance, repair and replacement of the Project, including, without limitation: wages, salaries and other compensation and benefits of all persons engaged in the operation, maintenance and security of the Project; property management, legal, accounting and consulting fees in the maintenance, management, operation and/or repair of the Project; janitorial, alarm, security and other services;

roof repair and re-roofing; Project management office rent or rental value; rent or rental value for Project space occupied by Common Area facilities, such as cafeterias, fitness centers and other amenities; cost of power, water, waste disposal, telephone, elevator, sprinkler and other utilities usage and facilities maintenance and service; materials and supplies; costs of maintenance and repairs including with respect to systems and equipment; costs of permits, licenses, certificates and inspections; insurance premiums for all insurance carried by Landlord in connection with the Project as reasonably determined by Landlord and the deductible portion of any insured loss thereunder; depreciation on personal property; the cost of landscaping, re-lamping and all supplies, tools, equipment and materials used in the operation, repair, restoration and maintenance of the Project; and the cost of capital repairs, replacements or other improvements to or other costs incurred in connection with the Project, including, without limitation, those (i) which are intended to effect economies in the operation or maintenance of the Project, (ii) that are required to comply with present or anticipated conservation programs, (iii) which are replacements or modifications of nonstructural items located in the Common Areas required to keep the Common Areas in good order and condition, (iv) that are required under any applicable "Laws" (as hereinafter defined) enacted following the construction of the applicable portion of the Project; provided, however, that any capital expenditure shall be amortized over its useful life as Landlord shall reasonably determine, and the unamortized cost thereof shall bear interest at the rate of ten percent (10o) per annum or such higher rate as was paid by Landlord on funds borrowed for the purposes of purchasing, installing and/or constructing such capital improvements. Operating Expenses shall not include: Tax Expenses; depreciation (except as provided above); cost of tenants' improvements; real estate brokers' commissions; legal fees in connection with the leasing of the Project; costs reimbursed by policies of insurance, the premiums of which are included in Operating Expenses. If less than ninety-five percent (95o) the total Rentable Area of the Project is occupied during the Base Year or any subsequent calendar year during the Term, then Landlord may adjust actual Operating Expenses for such Base Year or subsequent calendar year (during which less than ninety-five percent (95o) occupancy exists) to equal Landlord's reasonable and good faith estimate of what Operating Expenses would have been had ninety-five percent (95o) of the total Rentable Area of the Project been occupied; provided, however, that such adjustment shall apply only to Operating Costs which are variable and therefore increase as occupancy of the Project increases. If Landlord is not furnishing any particular work or service (the cost of which, if performed by Landlord, would be included in Operating Expenses) to a tenant who has undertaken to perform such work or service in lieu of the performance thereof by Landlord, Operating Expenses shall be deemed to be increased by an amount equal to the additional Operating Expenses which would reasonably have been incurred during such period by Landlord if Landlord had at its own expense furnished such work or service.

(e) The term "Tax Expenses" shall mean all federal, state, county, municipal or local governmental taxes, fees, charges or other impositions of every kind and nature, whether general, special, ordinary or extraordinary, including, without limitation, real estate taxes, general and special taxes and/or assessments (including, without limitation, any assessment, tax, fee, levy or charge by any school, agricultural, lighting, drainage, transportation, community facilities, improvement or other district), transit taxes, personal property taxes imposed upon the fixtures, machinery, equipment, apparatus, systems and equipment, appurtenances, furniture and other personal property used in connection with the Project, which Landlord shall pay or become obligated to pay during any calendar year (without regard to any different fiscal year used by such governmental

authority) because of or in connection with the ownership, leasing and/or operation of the Project. Tax Expenses shall include any assessment, tax, fee, levy or charge in addition to, or in substitution, partially or totally, of any assessment, tax, fee, levy or charge previously included within the definition of Tax Expenses, and all consultants' and attorneys' fees and expenses incurred for the purpose of maintaining an equitable assessed valuation of the Building and/or attempting to protest, reduce or minimize Tax Expenses. Tax Expenses shall also include any interest charged and paid during the applicable year.

(f) The term "Building Operating Expenses" shall mean the portion of Operating Expenses allocated to the Building pursuant hereto. The term "Building Tax Expenses" shall mean the portion of Tax Expenses allocated to the Building pursuant hereto. The parties acknowledge that the Building is a part of a multi-building project and that the costs and expenses incurred in connection with the Project should be shared between the tenants of the Building and the tenants of the other buildings of the Project. Accordingly, Operating Expenses and Tax Expenses are determined annually for the Project as a whole, and a portion of the Operating Expenses and Tax Expenses, respectively, which portion shall be determined by Landlord on an equitable basis, shall be allocated to the tenants of the Building (as opposed to the tenants of any other buildings of the Project) and such portion shall be the Building Operating Expenses and Building Tax Expenses, respectively, for purposes of this Lease. Such portion of Operating Expenses and Tax Expenses allocated to the tenants of the Building shall include all Operating Expenses and Tax Expenses, respectively, attributable solely to the Building, and an equitable portion of the Operating Expenses and Tax Expenses, respectively, attributable to the Project as a whole. In addition, Landlord shall have the right, from time to time, to equitably allocate some or all of the Operating Expenses and/or Tax Expenses for the Project among different portions or occupants of the Project, in Landlord's discretion.

(g) The term "Rentable Area" shall mean the area or areas of space within any building in the Project determined as follows: (i) the amount of Rentable Area on a single tenancy floor is determined by measuring from the inside surface of the outer glass and extensions of the plane thereof in non-glass areas and shall include all areas within the outside walls, excluding vertical penetrations such as building stairs, elevators shafts, flues, vents, stacks, pipe shafts and vertical ducts, provided, however, that vertical penetrations which are for the specific use of the tenant, such as special stairs or elevators, shall be included within Rentable Area; (ii) the amount of Rentable Area for a partial floor shall include all space within the demising walls (measured from the mid-point of demising walls, and in the case of exterior walls, measured as defined in clause (i) above), plus the tenant's share of any Common Areas on such floor (such share being equal to the percentage which the amount of Rentable Area within the Premises bears to the total amount of Rentable Area on the floor); and (iii) the amount of Rentable Area for either a single tenancy floor or a partial floor shall include Tenant's Percentage of Common Areas devoted to or serving more than one floor of the applicable building or such building as a whole. No deductions shall be made in calculating the amount of Rentable Area for columns or projections necessary to the Building. Notwithstanding the foregoing or anything elsewhere contained in this Lease, the parties hereby agree that for all purposes of this Lease, the Premises shall be deemed to contain the amount of Rentable Area, and that Tenant's Base Rent, Percentage Share, Security Deposit, and all other matters determined by the amount of Rentable Area contained in the Premises shall be the amount set forth in the Basic Lease Information, notwithstanding any deviation therefrom.

(h) The term "Common Areas" shall mean those portions of the Project which are provided, from time to time, for use in common by Landlord, Tenant and any other tenants of the Project, which may include, without limitation, public entrances, lobbies and rest rooms, fitness centers, restaurants, cafeterias, similar amenities, elevators, stairways and access ways, loading docks, ramps, drives and platforms and any passageways and service ways thereto, common pipes, conduits, wires and appurtenant equipment serving the Project or any portion thereof, loading and unloading areas, trash areas, parking areas, roadways, sidewalks, walkways, parkways, driveways and landscaped areas.

(i) The term "Tenant's Percentage Share" shall mean the product obtained by multiplying (i) 100 by (ii) the quotient obtained by dividing the Rentable Area of the Premises by the total Rentable Area of the Building. Tenant's Percentage Share shall initially be as specified in the Basic Lease Information and shall be subject to adjustment in the event of a change in the Rentable Area of the Premises and/or the Building (with Tenant's Percentage Share as to the calendar year in which any such change occurs being determined on a pro rata basis based on the number of days during such calendar year at each such percentage share).

(j) The term "Laws" shall mean, collectively, any applicable federal, state, local and/or municipal laws, statutes, ordinances, codes, rules, regulations and/or other governmental requirements, including, without limitation, governmental promulgated or sponsored transportation system management programs adopted for the Building or the Project.

(k) The term "Initial Term" shall be more specifically defined herein as the initial thirteen (13) months of tenancy subsequent to the Commencement Date as defined hereinbelow.

2. Term; Condition of Premises. The "Term" of this Lease is estimated to commence on October 1, 2013, with actual "Commencement Date" (as defined in Exhibit "C" attached hereto) and, unless sooner terminated as hereinafter provided, shall be for the period specified in the Basic Lease Information; provided, however, that the actual expiration date of the Term shall be the last day of the calendar month during which the Term is scheduled to expire. If without fault of Tenant the Commencement Date of this Lease has not occurred by the date which is ninety (90) (90) days following the Estimated Commencement Date set forth above (subject to Force Majeure), then either party may terminate this Lease by delivering written notice of termination to the other within five (5) days following the expiration of such ninety (90) day period (the failure to deliver such notice shall be deemed an election to not terminate this Lease). If either party terminates this Lease as provided in the preceding sentence, then neither party shall have any further liability or obligation hereunder. Except to the extent specifically otherwise provided in this Lease, Landlord shall deliver the Premises to Tenant on the Commencement Date in an "as is" condition with no alterations or improvements being made by Landlord. Following the Commencement Date, Landlord may deliver to Tenant a notice confirming the actual Commencement Date and the date of the expiration of the Term specified in the Basic Lease Information, which notice shall be executed by Tenant and returned to Landlord within five (5) days following Tenant's receipt thereof.

Notwithstanding anything in the terms of the Lease or any Article thereof to the contrary, provided Tenant is not in default beyond any applicable notice and cure period, and the Lease is in full force and effect at the time the "Extension Notice" (as hereinafter defined) is received by

Landlord or thereafter until the commencement of the applicable "Option Term" (as hereinafter defined), Tenant shall have the option to extend the Term of this Lease for two (2) additional terms (the "Option Term") of one (1)year following the expiration of the Initial Term, exercisable by delivering written notice (the "Extension Notice") to Landlord of Tenant's desire to so extend the Term by the Option Term, no later than three (3) months, and no earlier than six (6) months prior to the expiration of the Initial Term. Tenant's use and occupancy of the Premises during the Option Term shall be subject to all of the terms and conditions of this Lease, except that the monthly Base Rent payable by Tenant shall be adjusted as of the commencement date of the Option Term to include increase of three percent (30) and each Option term thereof.

3. Base Rent.

(a) Tenant shall pay to Landlord from and after the Commencement Date during the Term of this Lease as "Base Rent" for the Premises, the monthly amount specified in the Basic Lease Information.

(b) Base Rent shall be paid to Landlord, in advance, on or before the first day of each calendar month during the Term, except that Base Rent for the initial full month during the Term for which Base Rent is due, which shall be paid upon the execution of this Lease. Base rent during the initial Term for which Base Rent is due for the second month of said term, shall be abated pursuant to section 3(h) hereinbelow. In the event the Term commences on a day other than the first day of a calendar month or ends on a day other than the last day of a calendar month, the monthly Base Rent for the first and last fractional months of the Term shall be appropriately prorated.

(c) All sums of money due to Landlord under this Lease not specifically characterized as rental shall constitute additional rent, and if any such sum is not paid when due it shall nonetheless be collectible as additional rent with the next installment of Base Rent thereafter falling due, but nothing contained herein shall be deemed to suspend or delay the payment of any sum of money at the time it becomes due and payable hereunder, or to limit any other remedy of Landlord

(d) Tenant hereby acknowledges that late payment by Tenant to Landlord of rent and other sums due hereunder will cause Landlord to incur costs not contemplated by this Lease, the exact amount of which will be difficult to ascertain. Such costs include, but are not limited to, processing and accounting charges, and late charges which may be imposed on Landlord by the terms of any trust deed covering the Premises. Accordingly, if any installment of rent or any other sums due from Tenant shall not be received by Landlord when due, Tenant shall pay to Landlord a late charge equal to the greater of (i) 6% of such overdue amount or (ii) $100.00. The parties hereby agree that such late charge represents a fair and reasonable estimate of the costs Landlord will incur by reason of late payment by Tenant. Acceptance of such late charge by Landlord shall in no event constitute a waiver of Tenant's default with respect to such overdue amount, nor prevent Landlord from exercising any of the other rights and remedies granted hereunder. If a late charge becomes payable for three (3) payments of any element of rent within any twelve (12) month period, all subsequent payments of rent shall immediately and automatically become payable by Tenant quarterly, in advance, instead of monthly. In addition to the foregoing, upon Tenant's failure to pay Base Rent and/or any other component of additional rent when due, Landlord may immediately discontinue any and all services provided to Lessee, including, but not limited to, use of all common

areas, and Tenant hereby releases Landlord, its employees, agents, principals and contractors from any liability for damages which Tenant may suffer as a result of Landlord's suspension of services for the reasons stated herein. Tenant acknowledges that its payment of Base Rent and additional rent is a condition to Landlord's obligation to perform any of its covenants under this Lease.

(e) Any amount due to Landlord pursuant to this Lease, if not paid when due, shall bear interest from the date due until paid at a rate (the "Interest Rate") equal to the lesser of (i) 2% over the "prime" or "reference" rate then most recently published by Bank of America N.T. & S.A. (or a substitute prime rate of a comparable lending institution reasonably selected by Landlord if Bank of America N.T. & S.A. no longer publishes a "prime" or "reference" rate), or (ii) the maximum rate permitted by applicable Laws. Payment of interest shall not excuse or cure any default hereunder by Tenant.

(f) All payments of Base Rent, Escalation Rent and other monetary obligations due from Tenant to Landlord pursuant to this Lease shall be paid to Landlord, without deduction, abatement, counterclaim or offset, in lawful money of the United States of America at Landlord's address for notices hereunder, or to such other person or at such other place as Landlord may from time to time designate by notice to Tenant. If Tenant receives from Landlord an invoice or statement, and Tenant in good faith disputes whether all or any part of such Rent is due and owing, Tenant shall nevertheless pay to Landlord the amount of the Rent indicated on the invoice or statement until Tenant receives a final judgment from a court of competent jurisdiction (or when arbitration is permitted or required, receives a final award from an arbitrator) relieving or mitigating Tenant's obligation to pay such Rent. In such instance where Tenant disputes its obligations to pay all or part of Rent indicated on such invoice or statement, Tenant shall concurrently with the payment of such Rent, provide Landlord with a letter or written notice entitled "Payment Under Protest" specifying in detail why Tenant is not required to pay all or part of such Rent. Tenant will be deemed to have waived its right to contest any past payment of Rent unless it has filed a lawsuit against Landlord (or when arbitration is permitted or required, filed for arbitration and has served Landlord with a notice of such filing), and has served a summons on Landlord, within one (1) year of such Payment.

(g) On the twelve (12) month anniversary of the Commencement Date and on each twelve (12) month anniversary thereafter during the Term, including, without limitation, any extension(s) thereof (each such day hereinafter referred to as an "Adjustment Date"), the Base Rent payable by Tenant shall be increased by three percent (3%).

(h) Notwithstanding the foregoing, provided that no default by Tenant occurs (including any circumstance which could constitute a default either with the passage of time or with the giving of notice), Tenant's obligation to pay Base Rent for the second month of Tenancy, estimated to be October 2013 is hereby abated by Landlord, but Tenant's use and occupancy of the Premises during such period shall otherwise be subject to all of the terms and conditions of this Lease.

4. Escalation Rent.

(a) Tenant shall pay to Landlord as "Escalation Rent" for the Premises, during each full or partial calendar year during the Term subsequent to the Base Year and completion of the "Initial Term", more specifically defined pursuant to Section 1(k) hereinabove, (i) Tenant's

Percentage Share of the total dollar increase, if any, in Building Operating Expenses for such year over the Building Operating Expenses for the Base Year, plus (ii) Tenant's Percentage Share of the total dollar increase, if any, in Building Tax Expenses for such year over the Building Tax Expenses for the Base Year. Landlord shall prorate Operating Expenses and Tax Expenses for the Base Year based upon the number of days in the Base Year which follow the Commencement Date. Tenant shall not be entitled to any credit, refund or offset in the event Building Operating Expenses in any year following the Base Year are less than Building Operating Expenses for the Base Year and/or Building Tax Expenses in any year following the Base Year are less than Building Tax Expenses for the Base Year. Escalation Rent shall be paid monthly on an estimated basis, with subsequent annual reconciliation, in accordance with the procedures set forth in this Section 4. For purposes of calculating Escalation Rent, Landlord shall exclude from calculating Operating Expenses for the Base Year any costs and expenses (i) which Landlord reasonably determines have resulted directly or indirectly from a Force Majeure Event and/or from any Operating Expenses which Landlord reasonably determines are non-recurring in nature and (ii) which are incurred in connection with a restaurant, fitness center and/or similar facility located at the Project. In addition to Tenant's obligation to pay Escalation Rent as provided above, Tenant shall also pay Tenant's Percentage Share of Operating Expenses incurred by Landlord during the Base Year (and thereafter as part of Escalation Rent based upon Landlord's total expenses without any reference to a Base Year concept) in connection with any restaurant, cafeteria and fitness center, if any, located in the Common Areas of the Project.

(b) During December of the Base Year and December of each subsequent calendar year, or as soon thereafter as practicable, Landlord shall give Tenant notice of its estimate of any Escalation Rent due for the ensuing calendar year. On or before the first day of each month during the ensuing calendar year, Tenant shall pay to Landlord 1/12th of such estimated Escalation Rent, provided that if such notice is not given in December, Tenant shall continue to pay on the basis of the prior year's estimate until such revised estimate is delivered, from and after which time (commencing with the first day of the next calendar month after such notice is given) Tenant shall pay such amount as is necessary to bring Tenant current with respect to such revised estimate for such calendar year, as if such revised estimate had been delivered in December, and thereafter monthly payments shall be based on such revised estimate, unless and until further revised in accordance herewith. If at any time or times it appears to Landlord that the Escalation Rent for the current calendar year will vary from its estimate, Landlord may, by notice to Tenant, revise its estimate for such year, and subsequent payments by Tenant for such year shall be based upon such revised estimate.

(c) Within ninety (90) days after the close of each calendar year or as soon after such 90-day period as practicable, Landlord shall deliver to Tenant a statement of the actual Escalation Rent for such calendar year, accompanied by a statement showing the Building Operating Expenses and Building Tax Expenses on the basis of which the actual Escalation Rent was determined. Such statement shall be final and binding upon Landlord and Tenant as to the amount of the Building Operating Expenses and Building Tax Expenses. If Landlord's statement discloses that Tenant owes an amount that is less than the estimated payments for such calendar year previously made by Tenant, Landlord shall credit such excess first against any sums then owed by Tenant to Landlord and then against the next payments of rental due hereunder. If Landlord's statement discloses that Tenant owes an amount that is more than the estimated payments for such calendar year previously made by

Tenant, Tenant shall pay the deficiency to Landlord within thirty (30) days after delivery of the statement. The failure of Landlord to timely furnish the statement for any calendar year shall not prejudice Landlord from enforcing its rights hereunder.

(d) The amount of Escalation Rent for any partial calendar year in the Term shall be appropriately prorated. The termination of this Lease shall not affect the obligations of Landlord and Tenant pursuant to Section 4(c) above to be performed after such termination.

5. Use.

(a) The Premises shall be used for general office purposes and no other use or purpose. Tenant shall not do or permit to be done in or about the Premises, nor bring to keep or permit to be brought or kept therein, anything which is prohibited by or will in any way conflict with any Laws now in force or which may hereafter be enacted or promulgated, or which is prohibited by the standard form of fire insurance policy, or will in any way increase the existing rate of or affect any fire or other insurance upon the Building or any of its contents, or cause a cancellation of any insurance policy covering the Project, the Building or any of its contents. Tenant shall not do or permit anything to be done in or about the Premises which will in any way obstruct or interfere with the rights of other tenants of the Building, or injure or annoy them, or use or allow the Premises to be used for any improper, immoral, unlawful or objectionable purpose, nor shall Tenant cause, maintain or permit any nuisance or waste in, on or about the Premises.

(b) Except general office supplies typically used in an office area in the ordinary course of business, such as copier toner, liquid paper, glue, ink, and cleaning solvents, for use in the manner for which they were designed, in such amounts as may be normal for the office business operations conducted by Tenant in the Premises, neither Tenant nor its agents, employees, contractors, licensees, subtenants, assignees, concessionaires or invitees shall use, handle, store or dispose of any "Hazardous Materials" (as hereinafter defined) in, on, under or about the Premises, the Building or the Project. In the event of a breach of the foregoing covenant, in addition to and without limitation upon any other rights or remedies of Landlord under this Lease, Tenant or, at Landlord's election, Landlord, in each case at Tenant's sole cost, shall promptly take all actions as are necessary to return the Premises, Building and/or Project to the condition existing prior to the introduction of any such Hazardous Materials, provided Landlord's approval of such actions shall first be obtained and Tenant shall fully cooperate in connection with any such clean-up, restoration or other work. Furthermore, Tenant shall immediately notify Landlord of any inquiry, test, investigation or enforcement proceeding by or against Tenant or the Premises concerning the presence of any Hazardous Materials. Tenant acknowledges that Landlord, at Landlord's election, shall have the sole right, at Tenant's expense, to negotiate, defend, approve and appeal any action taken or order issued by any governmental authority with regard to any Hazardous Materials contamination which Tenant is obligated hereunder to remediate. As used herein, "Hazardous Materials" shall mean asbestos, and petroleum fuel, and any hazardous or toxic substance, material or waste (or subparts thereof) which is or become regulated by any local governmental authority, the State of California or the United States Government, including, but not limited to, any material or substance defined as a "hazardous waste," "extremely hazardous waste," "restricted hazardous waste," "hazardous substance," "hazardous material" or "toxic pollutant" under the California Health and Safety Code and/or under the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. 9601, et seq.

6. Services.

(a) Landlord shall maintain the Common Areas of the Project, the windows in the Building, the mechanical, plumbing and electrical equipment serving the Building, and the Building structure itself in reasonably good order and condition except for damage occasioned by the act of Tenant and/or any of Tenant's employees, agents, representatives, contractors and/or invitees, which damage shall be repaired by Landlord at Tenant's expense.

(b) Landlord shall cause to be furnished (1) electricity for lighting and the operation of customary general office machines, (2) heat and air conditioning to the extent reasonably required for the comfortable occupancy by Tenant in its use of the Premises during the following periods (collectively, "Building Standard Hours"): from 8 a.m. to 6 p.m. on weekdays and from 9 a.m. to 1 p.m. on Saturdays (except New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas Day and any other holidays customarily recognized by landlords of first-class office properties in the vicinity of the Project), or such shorter period as may be prescribed by any applicable policies or regulations adopted by any utility or governmental agency, (3) elevator service, (4) lighting replacement (for building standard lights located in any Common Areas), (5) rest room supplies for rest rooms located in Common Areas, and (6) security measures and/or services during the times and in the manner that such services are customarily furnished in comparable office buildings in the area. Landlord may establish reasonable measures to conserve energy, including, but not limited to, automatic switching of lights after hours and more efficient forms of lighting, so long as such measures do not unreasonably interfere with Tenant's use of the Premises. Landlord shall not be in default hereunder or be liable for any damages directly or indirectly resulting from, nor shall the rental herein reserved be abated by reason of (i) the installation, use or interruption of use of any equipment in connection with the furnishing of any of the foregoing services, (ii) failure to furnish or delay in furnishing any such services when such failure or delay is caused by accident or any condition beyond the reasonable control of Landlord or by the making of necessary repairs or improvements to the Premises, Building or Project, or (iii) the limitation, curtailment, rationing or restrictions on use of water, electricity, gas or any other form of energy or utility serving the Premises, Building or Project. Landlord shall use reasonable efforts diligently to remedy any interruption in the furnishing of such services. Furthermore, Landlord shall have no obligation or liability whatsoever to Tenant in connection with any telecommunications or similar services which Tenant receives from others, notwithstanding the fact that Landlord may have (i) introduced the provider or facilitator thereof to Tenant or (ii) a preexisting or affiliate relationship with such provider or facilitator, and Tenant hereby waives any and all claims against Landlord with respect thereto.

(c) If heat-generating equipment or lighting other than building standard lights are installed or used in the Premises and such equipment or lighting affects the temperature otherwise maintained by the air conditioning system, or if equipment is installed in the Premises which requires separate temperature-controlled room, at Landlord's election, Landlord shall install supplementary air conditioning facilities in the Premises or otherwise modify the ventilating and air conditioning system serving the Premises, and the capital and maintenance costs of such

facilities and installations /modifications shall be borne by Tenant. For purposes of this Lease, supplemental air conditioning facilities shall include, without limitation, any air conditioning facilities which are not a part of the main building air conditioning facilities or which are otherwise added to such facilities to service the Tenant's computer or other equipment room.

(d) Tenant shall reimburse Landlord, upon billing thereof, for the cost of (i) all electricity (other than amounts charged pursuant to clause (ii) below), and all heat or air conditioning provided to the Premises during hours other than during Building Standard Hours, at the then prevailing rate therefor established by Landlord, (ii) all power and cooling energy provided for supplementary air conditioning facilities in or serving the Premises and for the equipment giving rise to the need for such facilities. Landlord shall have the right to install submeters at Tenant's expense, as necessary to measure such usage. Tenant shall also pay the cost of any transformers, additional risers, panel boards and other facilities if and to the extent required to furnish power for supplementary air conditioning facilities in or serving the Premises or power for lighting and office equipment.

(e) In the event that Landlord, at Tenant's request, provides services to Tenant that are not otherwise provided for in this Lease, Tenant shall pay Landlord's reasonable charges for such services upon billing thereof.

(f) For purposes of this Lease, electrical cost shall include, without limitation: (i) charges paid by Landlord for electricity; (ii) costs incurred in connection with an energy management program for the Project; and (iii) if and to the extent permitted by applicable Laws, a fee for the services provided by Landlord in connection with the selection of utility companies and the negotiation and administration of contracts for electricity, provided that such fee shall not exceed fifty percent (50%) of any savings obtained by Landlord. Electrical costs shall be adjusted as follows: (i) amounts received by Landlord as reimbursement for above standard electrical consumption shall be deducted from electrical costs and (ii) the cost of electricity incurred to provide overtime HVAC to specific tenants (as reasonably estimated by Landlord) shall be deducted from electrical costs.

(g) Landlord may, but shall have no obligation to, from time to time, employ one or more persons or entities to patrol or provide security for the Common Areas. Tenant and its employees shall cooperate with Landlord's security personnel, including those providing Common Area security for employees after Business Hours. Notwithstanding any such activity, Tenant shall have the sole responsibility of providing security for the Premises, the persons therein and all vehicles of Tenant and Tenant's employees. Under no circumstances shall the Landlord be liable to Tenant or to any other person by reason of any theft, burglary, robbery, assault, trespass, unauthorized entry, vandalism, or any other act of any third person occurring in or about the Premises. Tenant shall indemnify, defend and hold Landlord and its officers, directors, employees, and agents, harmless from and against any and all losses, liabilities, judgments, costs and expenses (including but not limited to reasonable attorneys' fees and other costs of investigation or defense) which such parties may suffer by reason of any claim asserted by any person arising out of, or related to, any of the foregoing. To the extent Landlord elects to provide such patrol or security services, the cost thereof shall be included in Operating Expenses.

(h) Notwithstanding anything to the contrary contained in the Lease (including, without limitation, this Section 6), if the Basic Lease Information provides that Tenant will pay for or reimburse Landlord for (or procure its own) electrical, janitorial or any other service with respect to the Premises or Project, then Tenant shall pay for or reimburse Landlord for (or procure) such service as provided in the Basic Lease Information notwithstanding the fact that the body of this Lease may indicate that Landlord will provide that particular service to Tenant without additional charge.

7. Impositions Payable by Tenant. In addition to the monthly rental and other charges to be paid by Tenant hereunder, Tenant shall pay or reimburse Landlord for any and all of the following items (hereinafter collectively referred to as "Impositions"), whether or not now customary or in the contemplation of the parties hereto: taxes (other than local, state and federal personal or corporate income taxes measured by the net income of Landlord from all sources), assessments (including, without limitation, all assessments for public improvements, services or benefits, irrespective of when commenced or completed), excises, levies, business taxes, license, permit, inspection and other authorization fees, transit development fees, assessments or charges for housing funds, service payments in lieu of taxes and any other fees or charges of any kind, which are levied, assessed, confirmed or imposed by any public authority, but only to the extent the Impositions are (a) upon, measured by or reasonably attributable to the cost or value of Tenant's equipment, furniture, fixtures and other personal property located in the Premises, or the cost or value of any leasehold improvements made in or to the Premises by or for Tenant, regardless of whether title to such improvements shall be in Tenant or Landlord (b) upon or measured by the monthly rental or other charges payable hereunder, including, without limitation, any gross receipts tax levied with respect to the receipt of such rental (c) upon, with respect to or by reason of the development, possession, leasing, operation, management, maintenance, alteration, repair, use or occupancy by Tenant of the Premises or any portion thereof or (d) upon this transaction or any document to which Tenant is a party creating or transferring an interest or an estate in the Premises. In the event that it shall not be lawful for Tenant to reimburse Landlord for the Impositions but it is lawful to increase the monthly rental to take into account Landlord's payment of the Impositions, the monthly rental payable to Landlord shall be revised to net Landlord the same net return without reimbursement of the Impositions as would have been received by Landlord with reimbursement of the Impositions.

8. Alterations.

(a) Tenant shall not make or suffer to be made any alterations, additions or improvements to the Premises (collectively, "Alterations"), without Landlord's prior consent, which consent shall not be unreasonably withheld (except that such consent may be granted or withheld in Landlord's sole and absolute discretion as to any proposed Alterations which would affect the Building exterior, structural components or utility or life-safety systems). For purposes hereof, "Alterations" shall include, without limitation, carpeting, window and wall coverings, air lines, power panels, electrical distribution, security, fire protection systems, communications (including, without limitation, telephone lines), lighting fixtures, heating, ventilating and air conditioning equipment, plumbing, and fencing, in, on or about the Premises. All Alterations shall, at Landlord's option, be made by Landlord at Tenant's cost in accordance with the procedures set forth in this Section. All Alterations shall immediately become Landlord's property and, at the end of the Term hereof, shall remain on the Premises without

compensation to Tenant unless Landlord elects by notice to Tenant to require the removal of any such Alterations, in which event Tenant shall be responsible for the cost of Landlord's removal of such Alterations and restoration of the Premises to its condition prior to the installation of such Alterations. Notwithstanding the preceding sentence, Tenant shall remove all of its telephone equipment and associated wiring from the Premises and Project by the expiration of the Term, unless Landlord elects by notice to Tenant to have the same remain on the Premises following expiration of the Term.

(b) Plans and specifications for the Alterations shall be prepared at Tenant's expense by either its architect or Landlord's architect if Tenant so elects, and by engineers approved by Landlord where mechanical or electrical engineering services are required by the nature of the Alterations. Tenant shall cause any architect retained by it to follow the standard construction administration procedures and to utilize the standard specifications and details promulgated by Landlord for the Building. The plans and specifications shall be subject to approval by Landlord and Tenant, which approval shall not be unreasonably withheld by either party, and following such approval Landlord shall obtain quotations of the cost of the Alterations as reflected by the approved plans and specifications from one or more general contractors approved by Landlord for construction in the Building. Landlord shall submit the quotations to Tenant, shall accept the quotations approved by Tenant, and shall proceed to enter into a contract for the construction or installation of the Alterations with the contractor whose quotation was approved by Tenant. Landlord itself does not warrant the cost of the Alterations or the timeliness of performance or the quality of the contractor's work, but Landlord shall use reasonable efforts to secure performance of the construction contract for Tenant's benefit.

(c) In the event Landlord or the contractor is instructed by Tenant to proceed with any changes to the Alterations without a prior determination of any increased costs resulting from such changes and without approval of such increases by Tenant, or in the event Tenant is responsible for increased costs attributable to a delay or acceleration in the time for construction, the amount of any increased costs shall be as reasonably determined by Landlord upon completion of the Alterations, subject only to Landlord's reasonable efforts in causing the contractor to furnish Tenant appropriate back-up information concerning increased costs, if any.

(d) The cost of the Alterations to be paid by Tenant shall include a reasonable charge for the administration by Landlord or its agent of the construction or installation of the Alterations, which Landlord and Tenant agree shall be not less than ten percent (10%) of the total costs of design and construction.

(e) Tenant shall pay to Landlord all amounts payable by Tenant pursuant to this Section within ten (10) days after billing by Landlord. Bills may be rendered in advance of or during the progress of the Alterations so as to enable Landlord to pay the contractor, architect or engineer without advancing Landlord's own funds. At Landlord's election, Tenant shall deposit with Landlord prior to the commencement of the Alterations the estimated cost thereof or such lesser portion as Landlord shall specify, to be held and applied to the cost as incurred. Any surplus funds shall be returned to Tenant when the Alterations have been paid for in full.

(f) Landlord may delegate some or all of its authority and responsibilities under this Section 8 to its managing agent, which may be an affiliate of Landlord.

(g) Landlord shall be entitled to all tax benefits arising from all construction by or on behalf of Landlord with respect to the Premises and any allowance provided by Landlord to Tenant pursuant to this Lease. Subject to the immediately preceding sentence, Tenant shall be entitled to all tax benefits arising from any Alterations constructed and paid for by Tenant (excluding any portion of the Tenant Improvements under Exhibit "C", the benefits of which shall accrue to Landlord), or arising from the installation by Tenant in the Premises of furniture, furnishings and equipment. Neither party shall claim or attempt to claim any tax benefits which are the property of the other party hereunder.

9. Liens. Tenant shall keep the Premises, Building and Project free from any liens arising out of any work performed, materials furnished or obligations incurred by or on behalf of Tenant. Landlord shall have the right to post and keep posted on the Premises any notices that may be provided by law or which Landlord may deem to be proper for the protection of Landlord, the Premises, Building and/or Project from such liens. Tenant shall remove any such lien by bond or otherwise within ten (10) days after notice from Landlord, and if Tenant shall fail to do so, Landlord may, but shall not be obligated to, pay the amount necessary to remove such lien without being responsible for investigating the validity thereof. Any amount so paid by Landlord shall be deemed additional rent under this Lease payable upon demand, without limitation as to other remedies available to Landlord under this Lease. Nothing contained in this Lease shall authorize Tenant to do any act which shall subject Landlord's title to the Premises, Building or Project to any liens whether claimed by operation of law or express or implied contract.

10. Repairs. By entry hereunder Tenant accepts the Premises as being in the condition in which Landlord is obligated to deliver the Premises, subject to any applicable provisions of Exhibit "C". Tenant shall, at all times during the Term and at Tenant's sole cost and expense, keep the Premises (including, without limitation, any Tenant Improvements, Alterations and Tenant's furniture, fixtures, equipment and personal property in the Premises) in good condition and repair (regardless of the cost therefor and/or the time remaining on the Term), ordinary wear and tear, damage thereto by fire (unless caused by or contributed to by Tenant), earthquake, act of God or the elements excepted. Tenant hereby waives all rights to make repairs at the expense of Landlord or in lieu thereof to vacate the Premises and all rights under Sections 1932(1), 1941 and 1942 of the California Civil Code or any successor statute. Tenant shall at the end of the Term surrender to Landlord the Premises and all Alterations thereto that are to remain in the Premises in the same condition as when received, ordinary wear and tear and damage by fire (unless the same is caused by or contributed to by Tenant), earthquake, act of God or the elements excepted. Tenant shall remove all of its personal property and equipment from the Premises prior to the expiration of the Term or earlier termination of this Lease, and if Tenant fails to remove the same, Landlord may do so and store or dispose of the same at Tenant's sole cost. For purposes of the preceding sentence, Tenant's removal obligations shall include, without limitation, internal stairways, raised floors, personal baths and showers, vaults, rolling file systems and structural alterations and modifications of any type. Landlord has no obligation and has made no promise to alter, remodel, improve, repair, decorate or paint the Premises, except as specifically otherwise provided in this Lease. No representations respecting the condition of the Premises, the Building or the Project have been made by Landlord to Tenant, except as specifically provided in this Lease.

11. Destruction or Damage.

(a) In the event the Premises or the portion of the Building necessary for Tenant's occupancy are damaged by fire, earthquake, act of God, the elements or other casualty, within sixty (60) days after such event, Landlord shall notify Tenant of the estimated time, in Landlord's reasonable judgment, required for repair or restoration. If such estimated time for repair or restoration is less than one hundred eighty (180) days after the date of casualty and the cost of repair is covered by insurance maintained by Landlord, Landlord shall forthwith repair or restore the Premises or the portion of the Building necessary for Tenant's occupancy, to the extent of insurance proceeds received on account of such casualty. If the time for repair or restoration is in excess of one hundred eighty (180) days after the date of casualty or the cost of repair is not covered by Landlord's insurance, Landlord shall elect, in the same notice to Tenant, either (i) to repair or restore the Premises or the portion of the building necessary for Tenant's occupancy, in which event this Lease shall continue in full force and effect, or (ii) to terminate this Lease, in which event this Lease shall terminate effective as of the date of the casualty. In the event Landlord is obligated or elects to repair the Premises pursuant to this Section 11, this Lease shall remain in full force and effect except that, if such damage is not the result of the act or omission of Tenant or Tenant's employees, agents, representatives, contractors or invitees, an abatement of rental shall be allowed Tenant for such part of the Premises as shall be rendered unusable by Tenant (but only to the extent actually not used by Tenant) in the conduct of its business during the time such part is so unusable.

(b) In addition to Landlord's rights under Section 11(a) above and Section 11(c) below, Landlord shall also have the right to terminate this Lease if: (i) the Project, or any portion thereof, shall be damaged so that, in Landlord's reasonable judgment, substantial alteration or reconstruction of the applicable portion of the Project shall be required (whether or not the Premises has been damaged); (ii) Landlord is not permitted by Law to rebuild the Project in substantially the same form as existed before the fire or casualty; or (iii) any Mortgagee requires that the insurance proceeds be applied to the payment of the mortgage debt. Landlord may exercise its right to terminate this Lease by notifying Tenant, in writing, within sixty (60) days after the date of the casualty, in which event this Lease shall terminate effective as of the date of the casualty.

(c) Notwithstanding anything to the contrary contained in this Section 11, in the event of casualty to the Premises or the portion of the Building necessary for Tenant's occupancy during the final twelve (12) months of the Term which is estimated by Landlord in good faith to require in excess of thirty (30) days to repair or restore, Landlord may elect to terminate this Lease by written notice to Tenant.

(d) If the Premises or the Building are to be repaired or restored under this Section 11, Landlord shall repair or restore the Building and all improvements in the Premises other than any of Tenant's furniture, fixtures, equipment, personal property, and any Tenant Improvements and Alterations made by or for Tenant. Tenant shall be responsible for the repair or restoration of any such Tenant's furniture, fixtures, equipment, personal property, and any Tenant Improvements and Alterations made by or for Tenant, provided that any repair of such Tenant Improvements or Alterations shall be performed by Landlord, at Tenant's cost.

(e) Landlord and Tenant acknowledge that their respective rights and obligations in the event of any damage to or destruction of the Premises or the Building are to be governed exclusively by this Lease and waive their respective rights under Sections 1932(2) and 1933(4) of the California Civil Code or any successor statute.

12. Insurance.

(a) Tenant shall, during the Term hereof and any other period of occupancy, at its sole cost and expense, keep in full force and effect the following insurance:

(1) All Risk insurance (including, without limitation, sprinkler leakage) upon property of every description and kind owned by Tenant and located in the Building or for which Tenant is legally liable or installed by or on behalf of Tenant, including, without limitation, furniture, fixtures, personal property, any Tenant Improvements (pursuant to Exhibit "C") and Alterations, in an amount not less than 100% of the full replacement cost thereof, and providing business interruption coverage for a period of one year. All such insurance policies shall name Tenant as named insured thereunder, shall name Landlord, and, at Landlord's request, Landlord's "Mortgagees" (as defined in Section 23 below), as loss payees thereunder, all as their respective interests may appear. Not less frequently than once every three (3) years, Landlord shall have the right to notify Tenant that it elects to have the replacement value re-determined by an insurance company or insurance consultant. The redetermination shall be made promptly and in accordance with the rules and practices of the Board of Fire Underwriters, or a like board recognized and generally accepted by the insurance company, and each party shall be promptly notified of the results by the company. The insurance required under this Lease shall be adjusted according to the redetermination and consideration of reasonable insurance limits for exposure being insured against pursuant to this Agreement.

(2) Commercial general liability insurance coverage, including personal injury, bodily injury, broad form property damage and contractual liability, where liability would otherwise exist in the absence of contract (covering the indemnity contained in Section 13), in amount not less than $1,000,000.00 per occurrence, $2,000,000.00 aggregate. All such insurance policies shall name Tenant as named insured thereunder and shall name Landlord and Landlord's managing agent and Mortgagees as additional insured thereunder. Such insurance shall be written as primary coverage and non-contributorty with respect to any insurance maintained by Landlord, to the extent of Tenant's liabilities and obligations pursuant to the terms of this Agreement.

(3) Workers' Compensation and Employer's Liability Insurance in form and amounts not less than that required by applicable law, but in no event will the coverage provided under Tenant's Employer's Liability Insurance be less than five hundred thousand dollars ($500,000.00) or such other amount as Landlord may be reasonably require.

(4) All vendors, movers and contractors engaged by or on behalf of Tenant to perform work in or about the Premises shall deliver proof of insurance to Landlord before said person or entity will be permitted to commence work, which insurance must name Landlord as an additional insured thereunder and be otherwise acceptable to Landlord.

(5) Any other form or forms of insurance, with coverage in such amounts, as Landlord may reasonably require from time to time, with Tenant and Landlord mutually agreeable to said additions and/or modifications, unless however mandated by statute, law and/or regulations thereof. Said "Mutual Agreement" shall not be unreasonably withheld.

(b) All policies shall be written in a form reasonably satisfactory to Landlord and shall be taken out with insurance companies admitted in the State of California holding a General Policyholders Rating of "A-" and a Financial Rating of VII or better, as set forth in the most current issue of Best's Insurance Reports. Prior to the date Tenant takes possession of any part of the Premises, Tenant shall deliver to Landlord copies of policies or certificates evidencing the existence of the amounts and forms of coverage required hereunder, and said certificates shall provide that no such policy shall be cancelable or reducible in coverage except after thirty (30) days' prior written notice to Landlord and any additional insured or loss payees thereunder. Tenant shall, within ten (10) days prior to the expiration of such policies, furnish Landlord with renewals or binders thereof, or if Tenant fails to do so, Landlord may order such insurance and charge the cost thereof shall be due from Tenant to Landlord upon demand as additional rent.

(c) During the Term, Landlord shall insure the Project (excluding, at Landlord's option, any property which Tenant is obligated to insure under Sections 12(a) above) against damage with All Risk insurance and commercial general liability insurance, in such amounts and with such deductibles as Landlord considers appropriate. Landlord may, but shall not be obligated to, obtain and carry any other form or forms of insurance as it deems advisable. Notwithstanding any contribution by Tenant to the cost of insurance premiums as provided herein, Tenant acknowledges that it has no right to receive any proceeds from any insurance policies carried by Landlord.

(d) If Tenant's occupancy or business in or upon the Premises, whether or not Landlord has consented to the same, results in any increase in premiums for the insurance periodically carried by Landlord with respect to the Building or the Project, Tenant shall pay as additional rent any such increase in premiums within ten (10) days after being billed therefor by Landlord.

(e) All policies of property damage insurance required hereunder shall include a clause or endorsement denying the insurer any rights of subrogation against the other party to the extent rights have been waived by the insured before the occurrence of injury or loss. Landlord and Tenant hereby waive and shall cause their respective insurance carriers to waive any and all rights of recovery, claim, action or causes of action against the other and their respective trustees, principals, beneficiaries, partners, officers, directors, agents, and employees, for any loss or damage that may occur to Landlord or Tenant or any party claiming by, through or under Landlord or Tenant, as the case may be, with respect to Tenant's property, the Project, the Premises, any additions or improvements to the Project or Premises, or any contents thereof, including all rights of recovery, claims, actions or causes of action arising out of the negligence of Landlord or any parties related to Landlord or the negligence of Tenant, which loss or damage is (or would have been, had the insurance required by this Lease been carried) covered by insurance.

(f) Tenant acknowledges that Landlord may refuse to deliver possession of the Premises to Tenant unless and until Tenant delivers proof satisfactory to Landlord that it has procured and is maintaining the insurance required under this Section 12.

13. Indemnification. Tenant hereby waives all claims against Landlord for damage to any property or injury or death of any person in, upon or about the Premises or Project arising at any time and from any cause other than by reason of gross negligence or willful misconduct of Landlord, its employees, agents or representatives. Tenant shall insure itself against such losses under Section 12 above. Under no circumstances will Landlord be liable to Tenant for damage to Tenant's business or loss of income therefrom. Tenant shall indemnify, defend and hold harmless Landlord from and against any and all claims, demands, losses, liabilities, damages, costs and/or expenses (including, without limitation, reasonable attorneys' fees and expenses) arising out of (a) any injury to or death of any person or damage to or destruction of property attributable to or resulting from the use of the Premises and/or Project by Tenant, except such as is caused by gross negligence or willful misconduct of Landlord, its employees, agents or representatives, (b) the acts or omissions of Tenant or any of Tenant's employees, agents, representatives or invitees (including, without limitation, acts or omissions with respect to Hazardous Materials), and/or (c) any breach of this Lease by Tenant. The provisions of this Section shall survive the expiration of the Term or earlier termination of this Lease.

14. Compliance with Legal Requirements. Tenant, at its sole cost and expense (regardless of the cost therefor or the time remaining on the term), shall promptly comply with all Laws (including, without limitation, Laws respecting accessibility or use of the Premises by disabled persons) now in force or which may hereafter be in force, with the requirements of any board of fire underwriters or other similar body now or hereafter constituted, with any directive or occupancy certificate issued pursuant to any Law by any public officer or officers, as well as the provisions of all recorded documents affecting the Premises, insofar as any thereof relate to or affect the condition, use or occupancy of the Premises, excluding structural changes to the Premises or Building required to comply therewith, which structural changes shall be performed by Landlord as an item of Operating Expenses in accordance with Section l(d) above (except that Tenant shall be solely responsible for the cost of such structural changes as additional rent within ten (10) days following Landlord's demand, to the extent such structural changes are required as a result of Tenant's acts, specific use of the Premises, or improvements or Alterations made by or for Tenant).

15. Assignment and Subletting.

(a) Tenant shall not, without the prior consent of Landlord, which consent shall not be unreasonably withheld, assign or hypothecate this Lease or any interest herein, sublet the Premises or any part thereof, or permit the use of the Premises by any party other than Tenant. This Lease shall not, nor shall any interest herein, be assignable as to the interest of Tenant by operation of law without the consent of Landlord, which consent shall not be unreasonably withheld. Any of the foregoing acts without such consent shall be void and shall, at the option of Landlord, terminate this Lease. For purposes hereof, in the event Tenant is a partnership, a withdrawal or change of the managing partner, or partners owning more than a controlling interest in the partnership in one or more transfers, or if Tenant is a corporation, any transfer of a majority of its stock in one or more transfers, or the transfer by the controlling shareholder of so much of its stock that it is no longer the controlling shareholder; or if Tenant is a limited liability company, any transfer of a majority of its membership interest in one or more transfers, or the transfer by the controlling member of so much of its membership interest that it is no longer the controlling member, shall constitute a voluntary assignment and shall be subject to the provisions of this Section 15. In connection with each consent requested by

Tenant, Tenant shall submit to Landlord not less than ninety (90) days prior to the effective date of the proposed transaction, the terms of the proposed transaction, the identity of the parties to the transaction, the proposed documentation for the transaction and all other information reasonably requested by Landlord concerning the proposed transaction and the parties involved therein. Within sixty (60) days of receipt of such request for consent and other required information, Landlord shall elect either to: (i) consent to such proposed transaction (ii) refuse such consent, which refusal shall be on reasonable grounds or (iii) elect to terminate this Lease effective as of the date Tenant proposes to assign this Lease or sublet all of the Premises, or in the case of a partial sublease, terminate this Lease as to the portion of the Premises proposed to be sublet as of the date of such proposed partial sublease. Nothing contained in this Section 15 shall be deemed a waiver of Landlord's right to elect to terminate this Lease in accordance with clause (iii) of the foregoing sentence including, but not limited to, Landlord's failure to exercise its right to terminate this Lease with respect to any previous assignment or subletting. Further, Tenant understands and acknowledges that Landlord's option to terminate this Lease rather than approve the assignment thereof or the subletting of all or any portion of the Premises, is a material inducement for Landlord's agreeing to lease the Premises to Tenant upon the terms and conditions herein set forth.

(b) Without limiting the other instances in which it may be reasonable for Landlord to withhold its consent to an assignment or subletting, Landlord and Tenant acknowledge that it shall be reasonable for Landlord to withhold its consent in the following instances: (1) if at the time consent is requested or at any time prior to the granting of consent, Tenant is in default under this lease or would be in default under this Lease but for the pendency of any grace or cure period under Section 18 below; (2) if the proposed assignee or subtenant is a governmental agency; (3) if the proposed assignee or subtenant is an existing tenant in the Project or Landlord is then or within the prior 6 months has been negotiating with such assignee or subtenant for the lease of space within the Project; (4) if, in Landlord's reasonable judgment, the use of the Premises by the proposed assignee or subtenant would not be comparable to the types of office use by other tenants in the Project, would entail any alterations which would lessen the value of the leasehold improvements in the Premises, would result in more than a reasonable number of occupants per floor, or would require increased services by Landlord; (5) if, in Landlord's reasonable judgment, the financial worth of the proposed assignee or subtenant does not meet the credit standards applied by Landlord for other tenants under leases with comparable terms, or the character, reputation, or business of the proposed assignee or subtenant is not consistent with the quality of the other tenancies in the Building ; (6) if the subletting is of less than the entire Premises; or (7) any portion of the Project or Premises would likely become subject to additional or different Laws as a consequence of the proposed transaction.

(c) In the case of an assignment, one-half of any sums or other economic consideration received by Tenant as a result of such assignment shall be paid to Landlord after first deducting the unamortized cost of leasehold improvements paid for by Tenant, and the cost of any real estate commissions incurred by Tenant in connection with such assignment. In the case of a subletting, one-half of any sums or economic consideration received by Tenant as a result of such subletting shall be paid to Landlord after first deducting (1) the rental due hereunder, prorated to reflect only rental allocable to the sublet portion of the Premises, (2) the cost of leasehold improvements made to the sublet portion of the Premises at Tenant's cost, amortized over the term of this Lease except for leasehold improvements made

for the specific benefit of the subtenant, which shall be amortized over the term of the sublease, and (3) the cost of any real estate commissions incurred by Tenant in connection with such subletting, amortized over the term of the sublease. Landlord may also require that (i) all sublease payments be made directly to Landlord, in which case Tenant shall receive a credit against rent in the amount of any payments actually received (less Landlord's share of any excess to which Landlord is entitled under this Lease) and (ii) any and all security deposits or similar security given by any subtenant be delivered to, and held by, Landlord as an additional Security Deposit under the Lease.

(d) Regardless of Landlord's consent, no subletting or assignment shall release Tenant of Tenant's obligation or alter the primary liability of Tenant to pay the rental and to perform all other obligations to be performed by Tenant hereunder. The acceptance of rental by Landlord from any other person shall not be deemed to be a waiver by Landlord of any provision hereof. Consent to one assignment or subletting shall not be deemed consent to any subsequent assignment or subletting or a waiver of any of the terms of this Lease. No assignee or subtenant shall have a right further to assign or sublet without Landlord's prior consent in accordance with this Section 15. No sublease, once consented to by Landlord, shall be modified or terminated by Tenant without Landlord's prior consent, which consent shall not be unreasonably withheld. In the event of default by any assignee of Tenant or any successor of Tenant in the performance of any of the terms hereof, Landlord may proceed directly against Tenant without the necessity of exhausting remedies against such assignee or successor. Landlord may consent to subsequent assignments or subletting of this Lease or amendments or modifications to this Lease with assignees of Tenant, without notifying Tenant, or any successor of Tenant, and without obtaining its or their consent thereto, and such action shall not relieve Tenant of liability under this Lease. Tenant shall not be entitled to receive monetary damages based upon a claim that Landlord unreasonably withheld its consent to a proposed assignment or subletting, and Tenant's sole remedy shall be an action to enforce any such provision through specific performance or declaratory judgment.

(e) A condition to Landlord's consent to any assignment or other transfer of this Lease shall be the delivery to Landlord of a true copy of the fully executed instrument of assignment or transfer, and the delivery to Landlord of an agreement executed by the assignee or transferee in form and substance satisfactory to Landlord and expressly enforceable by Landlord, whereby the assignee or transferee assumes and agrees to be bound by all of the provisions of this Lease and to perform all of the obligations of Tenant hereunder. As a condition to Landlord's consent to any sublease, Landlord may require that such sublease (or, at Landlord's option, a separate consent document) include among other items, provisions stating (i) that it is subject and subordinate to this Lease and to all Mortgages and ground leases affecting the Project, (ii) Landlord shall be a third party beneficiary of the obligations of Tenant's subtenant and may enforce the terms of said sublease against said subtenant, and (iii) that in the event of a termination of this Lease for any reason, including without limitation, a voluntary surrender by Tenant or mutual cancellation by Landlord and Tenant, or in the event of any re-entry or repossession of the Premises by Landlord, such sublease shall terminate, except that Landlord, at its option, may elect to continue such sublease in effect and require that such subtenant attorn to and recognize Landlord as its landlord under such sublease.

(f) Tenant and each of Tenant's assignee(s) and/or subtenant(s) shall indemnify, defend (with counsel selected by Landlord), and hold Landlord, its officers, directors, employees, agents, principals, and their respective spouses, and Landlord's ground lessors and lenders, if any, harmless from and against any and all claims, liabilities, costs and expenses, including, without limitation, attorneys' and consultants' fees, arising, directly or indirectly, in whole or in part from any proposed assignment or subletting with respect to this Lease.

(g) In the event Tenant shall assign this Lease or sublet the Premises or request the consent of Landlord to any assignment, subletting, hypothecation or other action requiring Landlord's consent hereunder, then Tenant shall pay Landlord's reasonable attorneys' fees incurred in connection therewith.

16. Rules. Tenant shall faithfully observe and comply with the rules and regulations attached hereto as Exhibit "D", and after notice thereof, all reasonable modifications thereof and additions thereto from time to time promulgated in writing by Landlord, which may include parking regulations designed to ensure more orderly and efficient parking at the Project. Landlord shall not be responsible to Tenant for the nonperformance by any other tenant or occupant of the Building or the Project of any such rules and regulations.

17. Entry by Landlord. Landlord may enter the Premises at reasonable hours to (a) inspect the same (b) exhibit the same to prospective purchasers, lenders or tenants (c) determine whether Tenant is complying with its obligations under this Lease (d) supply janitor service and any other service to be provided by Landlord to Tenant hereunder (e) post notices of non-responsibility (f) make repairs or perform maintenance required of Landlord under the terms hereof, make repairs to any adjoining space or utility services, or make repairs, alterations or improvements to any other portion of the Building or (g) cure any default in the performance of Tenant's obligations under this Lease pursuant to Section 19 (c) below provided, however, that all such work shall be done as promptly as reasonably possible and so as to minimize unreasonable interference with the operation of Tenant's business from the Premises to the extent reasonably practicable. Tenant hereby waives any claim for damages for any inconvenience to or interference with Tenant's business or any loss of occupancy or quiet enjoyment of the Premises occasioned by such entry. Landlord shall at all times have and retain a key with which to unlock all of the doors in, on or about the Premises (excluding Tenant's vaults, safes and similar areas designated in writing by Tenant in advance) and Landlord shall have the right to use any and all means which Landlord may deem proper to open Tenant's doors in an emergency in order to obtain entry to the Premises, and any entry to the Premises obtained by Landlord in an emergency shall not be construed or deemed to be a forcible or unlawful entry into or a detainer of the Premises or an eviction, actual or constructive, of Tenant from the Premises or any portion thereof.

18. Tenant's Default. The following events shall constitute events of default under this Lease:

(a) a failure by Tenant to pay when due any rent or other sum payable hereunder and the continuation of such failure for a period of three (3) days after the same is due;

(b) a failure by Tenant to perform any of the other terms, covenants, agreements or conditions contained herein, and, if the failure is curable, the continuation of such failure for a period of ten (10) days after notice by Landlord; provided, however, that if the nature of Tenant's

obligation is such that more than ten (10) days are required for performance, then Tenant shall not be in default if Tenant commences performance within such 10 day period and thereafter diligently prosecutes the same to completion. Notwithstanding the foregoing, if the nature of Tenant's obligation is such that the failure to perform the same is likely to cause an imminent threat to life, person or property, then Tenant shall be in default hereunder if Tenant fails to commence to cure immediately upon discovery and to thereafter diligently pursue such cure to completion;

(c) the bankruptcy or insolvency of Tenant, transfer by Tenant in fraud of creditors, an assignment by Tenant for the benefit of creditors, or the commencement of any proceedings of any kind by or against Tenant under any provision of the Federal Bankruptcy Act or under any other insolvency, bankruptcy or reorganization act unless, in the event any such proceedings are involuntary, Tenant is discharged from the same within sixty (60) days thereafter;

(d) the appointment of a receiver for a substantial part of the assets of Tenant;

(e) the abandonment of the Premises;

(f) the levy upon this Lease or any estate of Tenant hereunder by any attachment or execution and the failure to have such attachment or execution vacated within thirty (30) days thereafter;

(g) if the performance of Tenant's obligations under this Lease is guaranteed: (i) the death of a Guarantor, (ii) the termination of a Guarantor's liability with respect to this Lease other than in accordance with the terms of such guaranty, (iii) a Guarantor's becoming insolvent or the subject of a voluntary or involuntary bankruptcy or other insolvency filing, (iv) an assignment by a Guarantor for the benefit of its creditors, (v) a Guarantor's breach of its guaranty obligation on an anticipatory basis, and Tenant's failure, within sixty (60) days following written notice of any such event, to provide written alternative assurance or security which, when coupled with the then existing resources of Tenant, equals or exceeds the combined financial resources of Tenant and the Guarantors that existed at the time this Lease was executed; or

(h) the breach or default by Tenant or an affiliate of Tenant under any other lease or other agreement under which Tenant or such affiliate occupies or previously occupied other space at the Project.

Any notice of default to be given pursuant to this Section 18 shall be in lieu of, and not in addition to, any notice required under California Code of Civil Procedure Section 1161 or any similar or successor statute. For example, if a notice and grace period required under this Section 18 was not previously given, a notice to pay rent or quit, or to perform covenant or quit given to Tenant under the unlawful detainer statute shall run concurrently, and the failure of Tenant to cure within the greater of the two such grace periods shall constitute both an unlawful detainer and a breach of this Lease, entitling Landlord to the remedies provided for in this Lease and/or by such statute.

19. Landlord's Remedies.

(a) In the event of any default by Tenant pursuant to Section 18 above, in addition to any other remedies available to Landlord at law or in equity, Landlord shall have the immediate option to terminate this Lease and all rights of Tenant hereunder. In the event that Landlord shall elect to so terminate this Lease, then Landlord may recover from Tenant: (i) the worth at the time of award of any unpaid rent which had been earned at the time of such termination plus (ii) the worth at the time of award of the amount by which the unpaid rent which would have been earned after termination until the time of award exceeds the amount of such rental loss that Tenant proves could have been reasonably avoided plus (iii) the worth at the time of award of the amount by which the unpaid rent for the balance of the Term after the time of award exceeds the amount of such rental loss that Tenant proves could be reasonably avoided plus (iv) any other amount necessary to compensate Landlord for all the detriment proximately caused by Tenant's failure to perform Tenant's obligations under this Lease or which in the ordinary course of things would be likely to result therefrom.

As used in clauses (i) and (ii) of this Section 19 (a) above, the "worth at the time of award" is computed by allowing interest at the Interest Rate. As used in clause (iii) of this Section 19(a) above, the "worth at the time of award" is computed by discounting such amount at the discount rate of the Federal Reserve Bank of San Francisco at the time of award plus 1%.

(b) In the event of any such default by Tenant and/or Tenant's abandonment of the Premises, Landlord shall also have the right to reenter the Premises and remove all persons and property therefrom by summary proceedings or otherwise such property may be removed and stored in a public warehouse or elsewhere at the cost of and for the account of Tenant or disposed of in a reasonable manner by Landlord. In the event Landlord shall elect to reenter as provided above, or shall take possession of the Premises pursuant to legal proceedings or pursuant to any notice provided by law, and if Landlord does not elect to terminate this Lease as provided by law, then Landlord may from time to time, without terminating this Lease, either recover all rental as it becomes due or relet the Premises or any part thereof for such term and at such rental or rentals and upon such other terms and conditions as Landlord in its sole discretion may deem advisable, with the right to make alterations and repairs to the Premises. It is the intention of the parties that in addition to, and without limitation upon, all other rights and remedies set forth in this Lease, Landlord shall have the remedy described in California Civil Code Section 1951.4 (lessor may continue lease in effect after lessee's breach and abandonment and recover rent as it becomes due). In the event that Landlord shall elect to relet, then rentals received by Landlord from such reletting shall be applied first, to the payment of any indebtedness, other than Base Rent due hereunder, owed by Tenant to Landlord second, to the payment of any cost of such reletting third, to the payment of the cost of any alterations and repairs to the Premises fourth, to the payment of Base Rent due and unpaid hereunder and the residue, if any, shall be held by Landlord and applied in payment of future rent as the same may become due and payable hereunder. Should that portion of such rentals received from such reletting during any month, which is applied to the payment of rent hereunder, be less than the rent payable during that month by Tenant hereunder, then Tenant shall pay such deficiency to Landlord. Such deficiency shall be calculated and paid monthly. Tenant shall also pay to Landlord, as soon as ascertained, any costs and expenses incurred by Landlord in such reletting, including but not limited to brokerage commissions, or in making alterations and repairs not covered by the rentals received from such reletting. No reentry or taking possession of the Premises by Landlord pursuant to this Section 19 shall be construed as an election to terminate this Lease unless a written notice of such intention shall be given by Landlord to Tenant or unless the termination thereof be decreed by a court of competent jurisdiction. Landlord may at any time after such reletting elect to terminate this Lease for any such default by Tenant.

(c) If Tenant fails to perform any covenant or condition to be performed by Tenant, Landlord may, but without obligation to do so, perform such covenant or condition at its option, after notice to Tenant. All costs incurred by Landlord in so performing shall immediately be reimbursed to Landlord by Tenant, together with interest at the Interest Rate computed from the due date. Any performance by Landlord of Tenant's obligations shall not waive or cure such default. Landlord may perform Tenant's defaulted obligations at Tenant's sole cost and expense without notice in the case of any emergency. All costs and expenses incurred by Landlord, including reasonable attorneys' fees (whether or not legal proceedings are instituted), in collecting rent or enforcing the obligations of Tenant under the Lease shall be paid by Tenant to Landlord upon demand. Tenant's obligations pursuant to this Section 19(c) shall survive the expiration or earlier termination of this Lease.

(d) Tenant hereby waives, for itself and all persons claiming by and under Tenant, all rights and privileges which it might have under any present or future Laws to redeem the Premises or reinstate or to continue the Lease after being dispossessed or ejected from the Premises. All rights, options and remedies of Landlord contained in this Lease shall be construed and held to be cumulative, and no one of them shall be exclusive of the other, and Landlord shall have the right to pursue any one or all of such remedies or any other remedy or relief which may be provided by law, whether or not stated in this Lease.

(e) In addition to the remedies described in Sections 19(a)-(d) above, Landlord shall be entitled to recover from Tenant under this Lease all amounts necessary to compensate Landlord for all the detriment proximately caused by any breach or default described in Section 18(h) above. The remedy provided for in this Section 19(e) shall be in addition to any and all remedies available in the other lease or agreement to which such breach or default pertains.

20. Landlord's Default and Tenant's Remedies. Landlord shall not be in default hereunder unless Landlord fails to perform the obligations required of Landlord within a reasonable time, but in no event later than thirty (30) days after written notice by Tenant to Landlord specifying wherein Landlord has failed to perform such obligation provided, however, that if the nature of Landlord's obligation is such that more than thirty (30) days are required for performance, then Landlord shall not be in default if Landlord commences performance within such 30 day period and thereafter diligently prosecutes the same to completion. In no event shall Tenant have the right to terminate this Lease or withhold rent as a result of Landlord's default and Tenant's remedies shall be limited to an action for damages, injunction or specific performance of this Lease. Notwithstanding anything contained in this Lease to the contrary, Tenant and all successors and assigns covenant and agree that, in the event of any actual or alleged failure, breach or default hereunder by Landlord, their sole and exclusive remedy shall be against Landlord's interest in the Project. Tenant and all such successors and assigns agree that the obligations of Landlord under this Lease do not constitute personal obligations of the individual partners, whether general or limited, members, directors, officers or shareholders of Landlord, and Tenant shall not seek recourse against the individual partners, directors, officers or shareholders of Landlord or any of their personal assets for satisfaction of any liability with respect to this Lease.

21. Attorneys' Fees. In the event of any dispute between Landlord or Tenant, whether or not suit is filed, or if either Landlord or Tenant shall institute any action or proceeding against the other party relating to this Lease, the non-prevailing party in such action or proceeding shall reimburse the prevailing party for its disbursements incurred in connection therewith and for its reasonable attorneys' fees, whether or not such action or proceeding is pursued to judgment. In addition to the foregoing award of attorneys' fees to the prevailing party, the prevailing party in any action or proceeding on this Lease shall be entitled to its attorneys' fees incurred in any post-judgment proceedings to collect or enforce any such judgment. For purposes of this Section, in any unlawful detainer or other action or proceeding instituted by Landlord based upon any default or alleged default by Tenant hereunder, Landlord shall be deemed the prevailing party if (a) judgment is entered in favor of Landlord or (b) prior to arbitration, trial or judgment Tenant shall pay all or any portion of the rent and charges claimed by Landlord, eliminate the condition(s), cease the act(s) or otherwise cure the omission(s) claimed by Landlord to constitute a default by Tenant hereunder. This provision is separate and several and shall survive (i) the expiration or earlier termination of this Lease and (ii) the merger of this Lease into any judgment on this Lease.

22. Eminent Domain. If all or any part of the Premises shall be taken as a result of the exercise of the power of eminent domain or sale in lieu of such taking (collectively, any "Taking"), this Lease shall terminate as to the part so taken as of the date of Taking, and, in the case of a partial Taking, either Landlord or Tenant shall have the right to terminate this Lease as to the balance of the Premises by notice to the other within thirty (30) days after such date, provided, however, that a condition to the exercise by Tenant of such right to terminate shall be that the portion of the Premises taken shall be of such extent and nature as substantially to handicap, impede or impair Tenant's use of the balance of the Premises. In the event of the Taking of a material portion of the Project (whether or not the Premises is affected thereby), Landlord shall have the right to terminate this Lease by notice to Tenant within 30 days following such Taking. In the event of any Taking, Landlord shall be entitled to any and all compensation, damages, income, rent, awards, or any interest therein whatsoever which may be paid or made in connection therewith, and Tenant shall have no claim against Landlord for the value of any unexpired Term of this Lease or otherwise. In the event of a partial Taking of the Premises which does not result in a termination of this Lease, the monthly rental thereafter to be paid shall be equitably reduced. The parties agree that their respective rights and obligations in the event of any Taking shall be governed by the terms of this Lease and hereby waive any and all rights under Section 1265.130 of the California Code of Civil Procedure or any similar or successor statutes.

23. Subordination.

(a) This Lease and Tenant's rights hereunder shall be subject and subordinate to any ground lease, mortgage, deed of trust, or other hypothecation or security device (collectively, any "Mortgage"), now or hereafter placed by Landlord upon the Project, Building or other real property of which the Premises is a part, to any and all advances made on the security thereof, and to all renewals, modifications, consolidations, replacements and extensions thereof. Tenant agrees that the ground lessors, mortgagees, trust deed beneficiaries and other lienholders under any such Mortgages (collectively, "Mortgagees") shall have no duty, liability or obligation to perform any of the obligations of Landlord under this Lease, but that in the event of Landlord's default with respect to any such

obligation, Tenant will give written notice to any Mortgagee whose name and address have been furnished Tenant in writing for such purpose notice of Landlord's default and allow such Mortgagee thirty (30) days (or if more than thirty (30) days is required to effect such cure, such additional time as may be necessary) following receipt of such notice for the cure of said default before invoking any remedies Tenant may have by reason thereof. If any Mortgagee shall elect to have this Lease and/or Tenant's rights hereunder superior to the lien of its Mortgage and shall give written notice thereof to Tenant, this Lease and such rights shall be deemed prior to such Mortgage, notwithstanding the relative dates of the documentation or recordation thereof.

(b) Notwithstanding any such subordination, and at the election of a Mortgagee or any other party who acquires ownership of the Premises by reason of the exercise of rights under a Mortgage or through a deed in lieu of foreclosure, Tenant agrees to attorn to such Mortgagee or other party, and in the event of such exercise of remedies and such election, such new owner shall not: (i) be liable for any act or omission of any prior landlord or with respect to events occurring prior to acquisition of ownership, (ii) be subject to any offsets or defenses which Tenant might have against any prior landlord, (iii) be bound by prepayment of more than one month's rent, (iv) be bound to return or otherwise credit any security or other deposits, except to the extent that such deposits are actually received by the new owner, or (v) be required to perform any obligations of any prior landlord under the Lease.

(c) The agreements contained in this Section 23 shall be effective without the execution of any further documents and shall survive the exercise of remedies under a Mortgage provided, however, that, upon written request from Landlord or a Mortgagee, Tenant and Landlord shall execute such further writings as may be required to separately document any of the matters provided for herein. If Tenant fails to execute any such document within ten (10) business days after written request by Landlord, (i) Landlord shall have the right to execute any such writing(s) on Tenant's behalf, (ii) such writings shall be binding on Tenant as if it had executed the same and (iii) Tenant hereby grants to Landlord a special power of attorney to execute any such writings.

24. Sale. In the event the original Landlord hereunder, or any successor owner of the Project, shall sell or convey the Project, all liabilities and obligations on the part of the original Landlord, or such successor owner, under this Lease accruing thereafter shall terminate, and thereupon all such liabilities and obligations shall be binding upon the new owner. Tenant agrees to attorn to such new owner.

25. Estoppel Certificate. At any time and from time to time, and in no event later than ten (10) days after request by Landlord, Tenant shall execute, acknowledge, and deliver to Landlord, a certificate certifying (a) that this Lease is unmodified and in full force and effect (or, if there have been modifications, that this Lease is in full force and effect, as modified, and stating the date and nature of the modification), (b) the amount of the Base Rent and most recent Escalation Rent, if any, and the date to which such rental has been paid, (c) that no notice has been received by Tenant of any default which has not been cured, except as to defaults specified in the certificate, (d) that no default of Landlord is claimed by Tenant, except as to defaults specified in the certificate, and (e) such other matters as may be reasonably requested by Landlord. Any such certificate may be relied upon by any prospective purchaser or existing or prospective Mortgagee under any Mortgage on the project or Building. Tenant's failure to deliver such statement within such time shall constitute a default by Tenant under this

Lease and shall be conclusive upon Tenant (i) that this Lease is in full force and effect, without modification except as may be represented by Landlord, (ii) that not more than one (1) monthly installment of Base Rent and Escalation Rent in the amount specified by Landlord has been paid in advance, and (iii) that there are no uncured defaults in Landlord's performance. Within ten (10) days following Landlord's request from time to time during the Term, Tenant shall deliver to Landlord Tenant's current financial statement and financial statements for the two (2) years prior to the current financial statement year, prepared in accordance with generally accepted accounting principles, consistently applied.

26. Project Planning. In the event Landlord requires the Premises for use in conjunction with another suite or for other reasons connected with Project planning, upon providing thirty (30) day written notification to Tenant , Landlord shall have the right to move Tenant to other premises, of equal size, comparable location, improvements, fit, and finish, in the Project (the "New Premises"), at Landlord's sole cost and expense, and the terms and conditions of this Lease shall remain in full force and effect, except that a revised Exhibit "B" shall become part of this Lease and shall reflect the location of the New Premises and Section 1 of this Lease shall be amended to include and state all correct data as to the New Premises (except that Tenant's rental obligations under this Lease shall not be increased as a result of such relocation to the New Premises). Tenant reserves the right to terminate said Lease, without penalty, if Landlord is unable to provide Tenant with New Location, comparable to Tenant's previous Premises, pursuant to the terms as set forth hereinabove. Such approval by Tenant shall not be unreasonably withheld.

27. No Light, Air, or View Easement. Any diminution or shutting off of light, air or view by any structure which may be erected on lands adjacent to the Building shall in no way affect this Lease or impose any liability on Landlord.

28. Holding Over. If Tenant holds possession of the Premises after expiration of the Term of this Lease or any termination of this Lease, Tenant shall become a tenant at sufferance only, at a monthly rental equivalent to 150% of the then prevailing monthly rental paid by Tenant at the expiration of the Term or termination of this Lease, payable in advance on or before the first day of each month, and otherwise subject to the terms, covenants and conditions herein specified, so far as applicable. Acceptance by Landlord of rent after such expiration or earlier termination shall not result in a renewal or extension of this Lease. If Tenant fails to surrender the Premises upon the expiration of this Lease despite demand to do so by Landlord, Tenant shall indemnify, defend and hold harmless Landlord from and against any and all claims, demands, losses, liabilities, damages, costs and/or expenses (including, without limitation, reasonable attorneys' fees and expenses) arising out of such failure to surrender including, without limitation, any claim made by any succeeding tenant.

29. Security Deposit. Concurrently with its execution of this Lease, Tenant shall deposit with Landlord the sum specified in the Basic Lease Information (the "Security Deposit"). The Security Deposit shall be held by Landlord as security for the faithful performance by Tenant of all the provisions of this Lease to be performed or observed by Tenant. If Tenant fails to pay Rent or other sums due hereunder, or otherwise defaults with respect to any provision of this Lease, Landlord may use, apply or retain all or any portion of the Security Deposit (i) first, for Tenant's repair obligations, including without limitation, the obligation to restore the Premises to the condition required under this Lease, (ii) second, to the

payment of any Rent or other sum in default or for the payment of any other sum to which Landlord may become obligated by reason of Tenant's default, and (iii) third to compensate Landlord for any loss or damage which Landlord may suffer thereby. If Landlord so uses or applies all or any portion of the Security Deposit, Tenant shall within ten (10) days after demand therefor deposit cash with Landlord in an amount sufficient to restore the Security Deposit to the full amount thereof and Tenant's failure to do so shall be a material breach of this Lease. Landlord shall not be required to keep the Security Deposit separate from its general accounts. If Tenant performs all of Tenant's obligations hereunder, the Security Deposit, or so much thereof as has not theretofore been applied by Landlord, shall be returned, without interest, to Tenant (or, at landlord's option, to the last assignee, if any, of Tenant's interest hereunder) within thirty (30) days following the expiration of the term hereof, and after Tenant has vacated the Premises (or such longer period as is permitted by applicable Laws). No trust relationship is created herein between Landlord and Tenant with respect to the Security Deposit. If this Lease provides for periodic increases in Base Rent, Tenant shall, within ten (10) days after demand by Landlord, increase the amount of the Security Deposit to equal the Base Rent then in effect.

30. Waiver. The waiver by Landlord of any agreement, condition or provision herein contained shall not be deemed to be a waiver of any subsequent breach of the same or any other agreement, condition or provision herein contained, nor shall any custom or practice which may grow up between the parties in the administration of the terms hereof be construed to waive or to lessen the right of Landlord to insist upon the performance by Tenant in strict accordance with such terms. The subsequent acceptance of rental hereunder by Landlord shall not be deemed to be a waiver of any preceding breach by Tenant of any agreement, condition or provision of this Lease, other than the failure of Tenant to pay the particular rental so accepted, regardless of Landlord's knowledge of the preceding breach at the time of acceptance of the rental.

31. Notices and Consents; Confidentiality. (a) All notices, consents, demands and other communications from one party to the other that are given pursuant to the terms of this Lease shall be in writing and shall be deemed to have been fully given two (2) full business days following deposit in the United States mail, certified or registered, postage prepaid, or one (1) business day following transmittal by reputable overnight courier (such as Federal Express), or when hand delivered, to the respective addresses for delivery of notices specified in the Basic Lease Information, or to such other place as either party may from time to time designate in a notice to the other party. Notwithstanding the foregoing, Tenant hereby appoints as its agent to receive the service of all dispossessory or distraint proceedings and notices thereunder the person in charge of or occupying the Premises at the time, and, if no person shall be in charge of or occupying the same, then such service may be made by attaching the same on the main entrance of the Premises.

(a) **Tenant shall not divulge the terms and provisions of this Lease to any third parties (other than Tenant's officers, directors, employees, accountants, and attorneys as required in the conduct of Tenant's business, or as otherwise required by applicable securities Laws); except in the case of any litigation concerning this Lease, in which event Tenant shall use its best efforts to keep such terms and provisions confidential. Except as otherwise set forth in this Section 31(b), Tenant's disclosure of such information to any other person shall constitute a material breach of this Lease. initials**

32. Complete Agreement. There are no oral agreements between Landlord and Tenant affecting this Lease, and this Lease supersedes and cancels any and all previous negotiations, arrangements, brochures, agreements, and understandings if any, between Landlord and Tenant or displayed by Landlord to Tenant with respect to the subject matter of this Lease or the Project. There are no representations between Landlord and Tenant other than those contained in this Lease. All implied warranties, including implied warranties of merchantability and fitness, are excluded.

33. Authority. If Tenant signs as a corporation, each of the persons executing this Lease on behalf of Tenant warrants that Tenant is a duly authorized and existing corporation, that Tenant has and is qualified to do business in California, that the corporation has the full right and authority to enter into this Lease, and that each and both of the persons signing on behalf of the corporation were authorized to do so. If Tenant signs as a partnership, each of the persons executing this Lease on behalf of Tenant warrants that Tenant is a partnership, that the partnership has the full right and authority to enter into this Lease, and that each person signing on behalf of the partnership is authorized to do so. If Tenant signs as a limited liability company, trust, or some other entity, each of the persons executing this Lease on behalf of Tenant warrants that Tenant is the type of entity stated, that the entity has the full right and authority to enter into this Lease, and that each person signing on behalf of said entity is authorized to do so.

34. Brokers. Landlord shall be responsible for the payment of any commissions owing in connection with this Lease to the brokers specified in the Basic Lease Information, if any (collectively, "Broker"), pursuant to separate agreement. Landlord and Tenant each represent and warrant that it has had no dealings with any real estate broker or agent in connection with the negotiation of this Lease, other than the Broker, and that it knows of no other real estate broker, agent or finder who is or might be entitled to a commission or fee in connection with this Lease. If either party has dealt with any other person or real estate broker with respect to leasing or renting space in the Project other than Broker, such party shall be solely responsible for the payment of any fees due said person or firm, and shall indemnify, defend and hold harmless the other party from and against any liabilities, damages or claims with respect thereto, including attorneys' fees and costs.

35. Parking. Tenant shall be entitled to the use of the number of nonexclusive and exclusive parking spaces indicated in the Basic Lease Information in such portion of the Common Areas as may be provided by Landlord from time to time for the purpose of such parking motor vehicles. Monthly parking fees payable with respect to such parking spaces shall be the prevailing rates within the Project for such spaces, if any, and shall be payable one month in advance prior to the first day of each calendar month. Landlord may assign any unreserved and unassigned parking spaces and/or make all or a portion of such spaces preferred and/or reserved, if it determines in its sole discretion that it is necessary for orderly and efficient parking. Tenant shall not use any spaces which have been specifically assigned by Landlord including, without limitation, spaces assigned for uses such as visitor parking or which have been designated by governmental entities with competent jurisdiction as being restricted to certain uses. The use by Tenant and its employees, visitors and invitees of the parking facilities of the Project shall be on the terms and conditions set forth herein as well as on the parking rules and regulations as established and modified by Landlord from time to time. Landlord shall not be responsible to Tenant for the violation or non-performance by any other tenant or occupant

of the Project of any of such parking rules and regulations. Tenant shall not permit or allow any vehicles that belong to or are controlled by Tenant or Tenant's employees, suppliers, shippers, customers or invitees to be loaded, unloaded or parked in areas other than those designated by Landlord for such activities. Notwithstanding the foregoing, Landlord shall have the right to designate specific parking areas or parking stalls within the Project for guest parking and for Tenant's parking spaces in excess of 3 parking spaces per one thousand (1,000) square feet of Useable Area.

36. Force Majeure. The time for performance by either party of any obligation under this Lease (other than the payment of rent or other monetary obligations) shall be extended for the period of delay resulting from fire, earthquake, explosion, flood, the elements, acts of God or the public enemy, strike, other labor trouble, interference of governmental authorities or agents, or shortages of fuel, supplies or labor resulting therefrom or any other cause, whether similar or dissimilar to the above, beyond the reasonable control of the party obligated for such performance, financial inability excepted (collectively, any "Force Majeure Event").

37. Dispute Resolution; Waiver of Trial by Jury.

(a) Each controversy, dispute or claim between the parties arising out of or relating to this Lease which is not settled in writing within thirty (30) days after the date on which a party to this Lease gives written notice to the other party that a controversy, dispute or claim exists (the "Claim Date"), will be settled by a reference proceeding in California in accordance with the provisions of Section 638 et seq. of the California Code of Civil Procedure or any successor provision (the "CCP"). Submission of any claim, controversy or dispute to a reference proceeding in accordance with the provisions of the CCP shall constitute the exclusive remedy for the settlement of any controversy, dispute or claim concerning this Lease, including, without limitation, whether such controversy, dispute or claim is subject to the reference proceeding. Except as set forth above, the parties waive their rights to initiate any legal proceedings against each other in any court or jurisdiction other than the Superior Court of Los Angeles County (the "Court").

(b) The referee in any proceeding commenced pursuant to subsection (a) above shall be a retired judge of the Court selected by mutual agreement of the parties, and if they cannot so agree within forty-five (45) days after the Claim Date, the referee shall be promptly selected by the Presiding Judge of the Court (or the Presiding Judge's representative). The referee shall be appointed to sit as a temporary judge, with all of the powers for a temporary judge, as authorized by law, and, upon selection, shall take and subscribe to the oath of office as provided for in Rule 244 of the California Rules of Court (or any subsequently enacted rule). Each party shall have one peremptory challenge pursuant to CCP § 170.6.

(c) The referee shall (i) be requested to set the matter for hearing within ninety (90) days after the Claim Date and (ii) try any and all issues of law or fact and report a statement of decision upon them, if possible, within one hundred eighty (180) days after the Claim Date. Any decision rendered by the referee will be final, binding and conclusive, and judgment shall be entered pursuant to CCP § 644 in any court in the State of California having jurisdiction. Any party may apply for a reference proceeding at any time after thirty (30) days following notice to the other party of the nature of the controversy, dispute or claim, by filing a petition for a hearing or trial.

(d) Any discovery permitted by this Lease shall be completed not later than ten (10) business days before the first hearing date established by the referee. The referee may extend such period in the event of a party's refusal to provide requested discovery for any reason whatsoever, including, without limitation, legal objections raised to such discovery or unavailability of a witness due to absence or illness. Neither party shall be entitled to "priority" in conducting discovery. Either party may take depositions upon seven (7) days' prior written notice, and each party shall respond to requests for production or inspection of documents within ten (10) days after service. All disputes relating to discovery which cannot be resolved by the parties shall be submitted to the referee whose decision shall be final and binding upon the parties. Pending appointment of the referee as provided herein, the Court is empowered to issue temporary or provisional remedies, as appropriate.

(e) Except as expressly set forth in this Lease, the referee shall determine the manner in which the reference proceeding is conducted, including, without limitation, the time and place of all hearings, the order of presentation of evidence. and all other questions that arise with respect to the course of the reference proceeding. All proceedings and hearings conducted before the referee, except for trial, shall be conducted without a court reporter, except that, if any party so requests, a court reporter will be used at any hearing conducted before the referee. The party making such a request shall have the obligation to arrange for and pay for the court reporter. The costs of the court reporter at the trial shall be borne equally by the parties.

(f) The referee shall determine all issues in accordance with existing case law and the statutory laws of the State of California. The rules of evidence applicable to proceedings at law in the State of California will be applicable to the reference proceeding. The referee shall be empowered to enter equitable as well as legal relief, to provide all temporary or provisional remedies and to enter equitable orders that will be binding upon the parties. The referee shall issue a single judgment at the close of the reference proceeding which shall dispose of all of the claims of the parties that are the subject of the reference and shall be final and binding on all Persons and not subject to any appeal.

(g) In the event that the enabling legislation which provides for appointment of a referee is repealed (and no successor statute is enacted), any dispute between the parties that would otherwise be determined by the reference procedure set forth herein will be resolved and determined by arbitration. The arbitration will be conducted by a retired judge of the Court, in accordance with the California Arbitration Act, §§ 1280 through 1294.2 of the CCP as amended from time to time. The limitations with respect to discovery as set forth herein shall apply to any such arbitration proceeding.

(h) By execution and delivery of this Lease, and subject to the provisions of subsection (a) above, each of the Members accepts for itself, generally and unconditionally, the exclusive jurisdiction of the Court, and waives any defense of forum non conveniens and irrevocably agrees to be bound by any judgment rendered thereby in connection with this Lease.

(i) Notwithstanding the dispute resolution procedures contained in this Section 37, the provisions of this Section 37 shall not preclude Landlord from enforcing its remedies under this Lease in a court of law and/or equity with respect to any action for unlawful detainer in accordance with Sections 1161, et. seq. of the CCP or any similar summary proceeding through which a lessor or owner may recover possession of property (or any successor statute thereto).

(j) To the fullest extent permitted by Law, Landlord and Tenant hereby waive trial by jury in any action, proceeding or counterclaim brought by either of the parties hereto against the other or any matter whatsoever arising out of or in any way connected with this Lease, the relationship of Landlord and Tenant, Tenant's use or occupancy of the Premises, or any claim of injury or damage, or the enforcement of any remedy under any statute, or otherwise.

38. Guaranty of Lease. Intentionally omitted.

39. Recapture. Any agreement by Landlord contained herein for free or abated rent or other charges applicable to the Premises, or for the giving or paying by Landlord to or for Tenant of any cash or other bonus, inducement or consideration for Tenant's entering into the Lease, all of which concessions are hereinafter referred to as "Inducement Provisions," shall be deemed conditioned upon Tenant's full and faithful performance of all of the terms, covenants and conditions to be performed by Tenant under this Lease. Upon the occurrence of a breach or default of this Lease by Tenant, or upon the filing by or against Tenant of any petition under the United States Bankruptcy Code (Title 11 U.S.C.) or any similar statute or law for the reorganization or liquidation of debt, or upon any voluntary or involuntary assignment by Tenant for the benefit of its creditors, (i) any such Inducement Provision shall automatically be deemed deleted and of no further force or effect, and (ii) any rent, other charge, bonus, inducement or consideration theretofore abated, given or paid by Landlord under such Inducement Provision shall be immediately due and payable by Tenant to Landlord, and shall be recoverable as additional rent due under the Lease, notwithstanding any subsequent cure of said default or breach by Tenant. The acceptance by Landlord of rent or the cure of the default or breach which initiated the operation of this paragraph shall not be deemed a waiver by Landlord of the provisions of this paragraph unless specifically so stated in writing by Landlord at the time of such acceptance.

40. Miscellaneous. The words "Landlord" and "Tenant" as used herein shall include the plural as well as the singular. If there be more than one Tenant, the obligations hereunder imposed upon Tenant shall be joint and several. Time is of the essence of this Lease and each and all of its provisions. Submission of this instrument for examination or signature by Tenant does not constitute a reservation of or option for lease, and it is not effective as a lease or otherwise until execution and delivery by both Landlord and Tenant. The agreements, conditions and provisions herein contained shall, subject to the provisions as to assignment, apply to and bind the heirs, executors, administrators, successors and assigns of the parties hereto. Notwithstanding the fact that certain references in this Lease to acts required to be performed by Tenant hereunder, or to breaches or defaults of this Lease by Tenant, omit to state that such acts shall be performed at Tenant's sole cost and expense, or omit to state that such breaches or defaults by Tenant are material, unless the context clearly implies to the contrary, each and every act to be performed or obligations to be fulfilled by Tenant shall be performed at Tenant's sole cost and expense, and all breaches or defaults by Tenant hereunder shall be deemed material. Upon request by Landlord, Tenant agrees to modify this Lease to meet the requirements of any or all lenders or ground lessors selected by Landlord who request such modification as a condition precedent to providing any loan or financing or to entering into any ground lease affecting or encumbering the Project or any portion thereof, provided that such modification does not (i)

increase Base Rent, (ii) alter the Term, or (iii) materially and adversely affect Tenants' rights hereunder. Tenant shall not, without the consent of Landlord, use the name of the Building or Project for any purpose other than as the address of the business to be conducted by Tenant in the Premises. Any option, right or first refusal, right of first negotiation/offer, or other similar right granted to Tenant in this Lease (collectively, an "Option") is personal to the original Tenant executing this Lease and cannot be voluntarily or involuntarily assigned or exercised by any person or entity other than said Tenant, and even then only when Tenant is in full possession of the Premises and has no intention of thereafter assigning or subletting. The Options, if any, herein granted to Tenant are not assignable, either as part of an assignment of this Lease or separately or apart therefrom, and no Option may be separated from this Lease in any manner, by reservation or otherwise. If any provision of this Lease shall be determined to be illegal or unenforceable, such determination shall not affect any other provision of this Lease and all such other provisions shall remain in full force and effect. This Lease is deemed to have been drafted jointly by the parties and shall not be interpreted against any party as drafter. This Lease shall be governed by and construed pursuant to the laws of the State of California. Tenant shall not record this Lease nor a short form memorandum hereof. The exhibits and addendum, if any, specified in the Basic Lease Information are attached to this Lease and by this reference made a part hereof. This Lease may be executed in any number of counterparts, each of which shall be deemed to be an original, but any number of which, taken together, shall constitute one and the same instrument. Tenant acknowledges that this Lease is subject to Landlord's receiving from its Mortgagee(s) approval of all of the terms contained herein.

IN WITNESS WHEREOF, the parties have executed this Lease on the respective dates indicated below:

LANDLORD:

FREEWAY PROPERTIES III,
a California limited partnership

By: FP REAL ESTATE, INC.,
a California corporation, Its Manager

By: /s/ Jeffrey A. Johnston
Jeffrey A. Johnston,
Vice President

TENANT:

Atara Biotherapeutics, a Delaware Corporation

By: /s/ Isaac Ciechanover

Print Name: Isaac Ciechanover

Its: Chief Executive Officer

By: _____

Print Name: _____

Its: _____

If Tenant is a corporation, this instrument must be executed by the chairman of the board, the president or any vice president and the secretary, any assistant secretary, the chief financial officer or any assistant financial officer or any assistant treasurer of such corporation, unless the bylaws or a resolution of the board of directors shall otherwise provide, in which case the bylaws or a certified copy of the resolution, as the case may be, must be attached to this instrument. If Tenant is a limited liability company, this instrument must be executed by Tenant's manager, unless another person or entity is authorized pursuant to Tenant's Operating Agreement or a member's resolution, in which case a certified copy of the Operating Agreement or escalation as the case may be, must be attached to this instrument.

Exhibit 10.26

SUBLEASE AGREEMENT

This Sublease Agreement (herein the "**Agreement**") is made and entered into by and among XDx, Inc., a Delaware Corporation ("**Sublessor**") and Atara Biotherapeutics, Inc., a Delaware corporation ("**Subtenant**") this 10th day of January 2013 to be effective as of the Commencement Date (as hereinafter defined).

Recitals:

A. Sublessor as successor to Expression Diagnostics, Inc., is party to that certain Lease, a copy of which Lease has been provided to Subtenant and is attached as Exhibit A hereto, with BMR-Bayshore Boulevard LP a Delaware limited partnership (formerly known as BMR-Bayshore Boulevard LLC, a Delaware limited liability company) as Landlord, (the "**Landlord**") which Lease was entered into effective as of April 27, 2006, as amended by that certain First Amendment to Lease dated as of November 10, 2010 (collectively, and as the same may have been or may be further amended, amended and restated, supplemented or modified from time to time, the "**Master Lease**") with respect to the Premises defined in the Master Lease. Capitalized terms used and not defined herein shall have the meaning given to such terms in the Master Lease.

B. Sublessor desires to sublease a portion of the Premises to Subtenant, comprised of approximately 900 square feet of office space located on the second floor consisting of four fully furnished offices including tables, chairs and bookshelves and adjacent cubicle spaces, together with the nonexclusive use of certain common areas related thereto, all as more particularly described and depicted on Exhibit B attached hereto and incorporated herein by this reference (herein the "**Subleased Premises**").

C. Pursuant to Section 25 of the Master Lease, Landlord's consent is required in connection with the subleasing of all or a portion of the Premises.

Now therefore, subject to receipt of the prior written consent of Landlord, Sublessor and Subtenant hereby agree as follows:

1. **Sublease**. Sublessor hereby subleases to Subtenant, the Subleased Premises for a term of Six (6) months from the sublease commencement date. In addition to its occupancy of the Subleased Premises Subtenant shall have access to a conference room for up to ten (10) hours each month.

2. **Commencement Date**. The sublease commencement date (the "**Commencement Date**") shall be January 14th, 2013, concurrent with Landlord's consent, as contemplated by Section 16 of this Agreement. As of the Commencement Date Subtenant has conducted such investigation and inspection of the Subleased Premises as it deems appropriate.

3. **Rent**. The monthly rent due by Subtenant under this Agreement for the Subleased Premises shall be **One Thousand Nine Hundred Thirty Five and no/100 Dollars ($1,935.00)** (the "**Monthly Rent**") which is equivalent to $2.15 per rentable square foot, payable in advance, on or before the first day of every month during the term and any extended term. Rent payable for January 2013 shall be prorated for the partial month. All rent shall be made

payable to Sublessor and delivered to XDx, Inc., 3260 Bayshore Blvd., Brisbane, California, 94005, Attention Patrick O'Connell, or to such other person or such other address as Sublessor may from time to time designate for the payment of rent by notice to Subtenant. Except as otherwise provided herein, no additional rent shall be payable by Subtenant for building operating expense such as taxes, insurance, standard utilities, common area utilities, janitorial, water, garbage and common area maintenance, or for any increase in building operating expenses and taxes during Subtenant's occupancy of the Subleased Premises. Mail is delivered to the main ground floor lobby of the building in which the Subleased Premises are located. Subtenant is responsible for picking up and distributing its own mail If Subtenant wishes to receive shredding services, such services are available for an additional charge. Sublessor reserves the right to charge Subtenant for any utilities which exceed standard office usage or that are separately metered for the exclusive use of Subtenant, if any.

4. **Use of Subleased Premises**. The Subleased Premises shall be used only for general office use (this use is the "Permitted Use"). The Subleased Premises shall not be used for any other use whatsoever without Sublessor's prior written consent, and as applicable, without Landlord's prior written consent. Subtenant will be allowed to use the existing PBX hardware, including desk units and speaker phones, located in the Subleased Premises. It is also understood and agreed that Subtenant's employees and visitors will be restricted to the Subleased Premises as defined on Exhibit B and to the common areas in the Premises as are noted on Exhibit B. Under no circumstances will Subtenant's employees and visitors be allowed to access the Subleased Premises through Sublessor's premises not already leased to Subtenant. Only in an emergency situations will Subtenant's employees and visitors be allowed to exit the facility through Sublessor's occupied space. Subject to Landlord's prior written consent, applicable covenants, conditions and restrictions and to applicable government code and regulation, Subtenant shall have the option to display (i) its logo prominently near the exterior entrance to the building; and (ii) its name and logo in the main lobby area of the building, with the exact detail of the signage to be determined by mutual agreement of Subtenant and Sublessor, and provided that the cost of such signage shall be at Subtenant's cost and expense.

5. **Furniture, Fixtures and Equipment**. Subtenant shall have use of all of the existing furniture systems, including the private office and cubicle furniture, and any existing data/telecom cabling or other electrical systems in the Subleased Premises (herein the "FF&E") during the term at no additional cost. Subtenant shall return the FF&E to Sublessor in the same condition as received, less reasonable wear and tear, at the expiration of the sublease term. Sublessor makes no warranties as to the working condition of the FF&E. Subtenant shall conduct its investigation of the condition of this personal property. Sublessor will locate the office table and chair in the corner office previously used as a library. Sublessor will rent one MFD photo copier to Subtenant at the then current applicable monthly lease rate. Sublessor reserves the right to terminate the copier rental by providing Subtenant not less than thirty (30) days prior written notice of such termination.

6. **Information Technology**. Subtenant will be responsible for paying Subtenant's proportionate share (based on the number of phones they use) of the maintenance contract and support plan not to exceed Sublessor's proportionate expenses for such services, plus Subtenant's telephone usage charge. Subtenant will pay for any technology support, including PBX system programming, cabling and any related costs associated with setting up and

maintaining such telephone system for Subtenant's use. Sublessor agrees to provide contact information for the phone and bandwidth service providers currently supporting the Subleased Premises. Subtenant will have use of a 5MB line for internet access. Subtenant will be responsible for paying Subtenant's proportionate share (based on the percentage of bandwidth capacity) of Sublessor's expenses for such internet access and services. In addition Subtenant will pay for any technology support and any additional bandwidth capacity Subtenant may require. Subtenant shall contract separately for internet bandwidth capacity outside of the 5MB line made available by Sublessor.

7. **Chemical Hygiene Plan**. Subtenant is responsible for maintaining its own chemical hygiene plan and will comply with all applicable state and federal requirements, regulations, codes and laws applicable to the proper use and disposal of chemical and biological hazardous material at its cost and expense.

8. **Right to Extend/Right of First Refusal**. Subtenant shall have the right to extend the term hereof for up to three (3) additional six (6) month terms upon giving prior written notice to Sublessor of Subtenant's intent to extend, which written notice shall be provided to Sublessor not less than ninety (90) days prior to the expiration of the then applicable term or extended term. In addition, if Sublessor chooses in its discretion to lease any of the adjacent area depicted on Exhibit B as Area 2 and any lab area depicted on Exhibit B as Area 3, (herein the "**Expansion Space**") and should Sublessor receive and be prepared to accept a bona-fide offer to sublease such Expansion Space, Subtenant shall have the right of first refusal to sublease such Expansion Space (or any portion thereof) as provided herein. Following receipt of such third party bona-fide offer to sublease, Sublessor will notify Subtenant of its receipt of such offer. Following the giving of such notice Subtenant will have a period of 14 days to notify Sublessor in writing of its intent to exercise its right to sublease the Expansion Space (or any portion thereof). Should Subtenant exercise the right of first refusal, the monthly rental for the Expansion Space shall be $2.15 per rentable square foot for Area 2 and $2.75 per rentable square foot for Area 3 and the Expansion Space (or any portion thereof) so subleased will be deemed thereafter to comprise a portion of the Subleased Premises. Notwithstanding the foregoing, if prior to October 1, 2013 Subtenant elects to sublease at least 1,000 rentable square feet of any portion of the Expansion Space, Sublessor and Subtenant shall extend the term of this Agreement for a period of not less than one year from the commencement date of the Subtenant's subtenancy of the Expansion Space (or portion thereof), with an option to extend the term for one year at the same applicable rate. In the event that Subtenant elects not to exercise its right of first refusal, Sublessor will be free to sublease to any third party. If Sublessor subleases space to a third party that is a competitor of Subtenant, Sublessor agrees to take reasonable steps to prevent such subtenant from having access to the Subleased Premises.

9. **Subtenant's Early Termination Right**. Following ninety (90) days after the commencement date, if Sublessor is unable to provide adequate space to accommodate Subtenant's expansion needs, Subtenant shall have the right to terminate this Agreement as provided herein. Subtenant may exercise the right to terminate upon providing Sublessor written notice of the Agreement termination, which notice may be given by Subtenant not earlier than ninety (90) days after the Commencement Date. Such notice shall be given not less than ninety (90) days prior to the termination date.

10. **Sublessor's Early Termination/Relocation Right**. Notwithstanding any other provision of this Agreement to the contrary, not less than ninety (90) days following the Commencement Date, if Sublessor has received and is prepared to accept a bona-fide offer to sublease more than 7,500 rentable square feet, and provided it is determined that there is no comparable space for Subtenant available within the space otherwise occupied by Sublessor under the Master Lease, Sublessor shall have the right to terminate this Agreement by providing Subtenant not less than ninety (90) days prior written notice of Sublessor's intent to terminate the Agreement. In the event that Sublessor exercises such right, Subtenant shall be required to vacate the "office" area of the Subleased Premises within such ninety (90) day period. Subtenant shall have up to 120 days to vacate the "lab" area. Subtenant shall pay monthly rental to Sublessor with respect to the any portions of the Subleased Premises occupied by Subtenant. Notwithstanding the foregoing, Sublessor shall also have the right to relocate the Subtenant to other replacement and comparable office/lab space occupied by Sublessor under the Master Lease by giving not less than ninety (90) days prior written notice to Subtenant. Rent payable for such new Subleased Premises shall be the same per square foot price as was applicable immediately prior to the relocation. In the event that Sublessor exercises its right to relocate the Subleased Premises as provided herein, Sublessor shall relocate Subtenant to such space at Sublessor's cost and expense. In the event that Sublessor terminates the Agreement without relocating Subtenant, Sublessor shall reimburse Subtenant for up to $5,000 for reasonable moving expenses incurred by Subtenant in moving out of the Subleased Premises, including early termination costs for vendors such as IT/Phone.

11. **Security Deposit**. Upon the execution and delivery of this Agreement Subtenant has given Sublessor a security deposit of $1,935 (the "Security Deposit") in immediately available funds. No interest will accrue on the Security Deposit, and Sublessor will not be required to keep the Security Deposit in a separate account. If Subtenant fails to perform any of its obligations under this Agreement, Sublessor may use, apply or retain all or any portion of the Security Deposit to perform the obligation or to compensate Sublessor for any loss caused by the default. If Sublessor uses, applies, or retains any of the Security Deposit as permitted in this Section, then Subtenant will immediately deliver to Sublessor the amount necessary to restore the Security Deposit to its original amount. Within fifteen (15) days following the termination of this Agreement, and provided that Subtenant has complied with all of its obligations hereunder, Sublessor will return the remainder of the Security Deposit to Subtenant.

12. **SUBTENANT ACCEPTS THE SUBLEASED PREMISES "AS IS" AS TO SUBLESSOR; SUBTENANT WAIVES ALL RIGHT TO REQUIRE SUBLESSOR TO PERFORM ANY MAINTENANCE, REPAIRS, AND REPLACEMENTS**. As to Sublessor, Subtenant hereby (i) accepts the Subleased Premises and all of its parts (including, without limitation, all fixtures, glass, walls, heating, ventilation, and air conditioning equipment, and all other mechanical systems) in its condition on the Commencement Date and agrees that this condition is suitable for the Permitted Use, and (ii) waives any obligation on Sublessor's part to keep the Subleased Premises safe and in a condition suitable for the Permitted Use, and (iii) waives all express or implied representations or warranties on the part of Sublessor, including, but not limited to, all warranties with respect to the provisions of the Master Lease, which Subtenant has reviewed, all warranties that the Subleased Premises are suitable for the Permitted Use or are free from vices, defects, or deficiencies, whether hidden or apparent, and all warranties under applicable law but only to the extent not expressly prohibited by applicable law. /s/ IC
INITIALS OF SUBTENANT

13. **Master Lease**. Sublessor hereby acknowledges that it has delivered a copy of the Master Lease to Subtenant, and Subtenant hereby acknowledges that it has received and reviewed a copy of the Master Lease.

(a) This Agreement is subject and subordinate to the Master Lease, and Subtenant shall not perform any activity which, if performed by Sublessor, would cause Sublessor to be in violation of its obligations under the Master Lease.

(b) Sublessee shall pay the Monthly Rent for the Subleased Premises to Sublessor as set out herein.

(c) The term of this Agreement shall be the term set forth herein, as the same may be extended, provided, however, that should the Master Lease terminate for any reason before the end of the then applicable term, then this Agreement shall terminate on that termination date with the same effect as if the Master Lease termination date were the original termination date of this Agreement. Sublessor will not be liable or responsible to Subtenant for this early termination unless the termination is caused by Sublessor and not by Subtenant's failure to perform its obligations assumed under this Agreement.

(d) Subtenant hereby waives any and all claims and other matters with respect to Sublessor and Landlord that Sublessor waives with respect to Landlord in the Master Lease. With respect to, and to the extent of the Subleased Premises only, Subtenant hereby assumes all of Sublessor's reimbursement and indemnification obligations set forth in the Master Lease with respect to loss, damage, and claims in connection with Subtenant's use or occupancy of the Subleased Premises and agrees that these obligations will run in favor of and be enforceable against Subtenant by Sublessor as well as by Landlord; provided, however, this sentence shall not apply with respect to any liability in respect of Hazardous Materials, any such liability being covered by Section 20 of this Agreement.

(e) At all times, Subtenant will carry all policies of insurance that Sublessor is obligated to carry under the Master Lease with respect to the Subleased Premises, provided that with respect to all policies on which Landlord is obligated to be named as an additional insured, Sublessor will also be named as additional insured, along with Landlord and all other persons and entities that are required to be named in the Master Lease, and with respect to all policies in which all of the insurer's rights of subrogation are to be waived by the insurer as to Landlord, all of the insurer's rights of subrogation are hereby waived and shall also be waived by the Subtenant's insurer as to Sublessor and its property manager. Before taking possession of the Subleased Premises, Subtenant shall deliver to Sublessor and Landlord certificates of insurance (and at Sublessor's request, original policies) evidencing the existence and amounts of all policies of insurance required hereunder, along with evidence that these policies contain the required loss payable, additional insured, waiver of subrogation and other required clauses reasonably satisfactory to Sublessor and, if required by the Master Lease, Landlord, as well as satisfactory evidence that Subtenant has paid the premium for each required policy for the full period shown in the certificate (or that Sublessor and Landlord, as applicable, will receive at

least 30 days' notice prior to the cancellation of any such policy). No less than 30 days before any of the insurance policies required under this Sublease is cancelled or expires, Subtenant shall deliver to Sublessor and, if required by the Master Lease, Landlord, certificates of insurance (and at Sublessor's request, original policies) evidencing the replacement or renewal policies and that they satisfy this Subsection, as well as satisfactory evidence that Subtenant has paid the premium for the full period shown in the certificate (or that Sublessor and Landlord as applicable, will receive at least 30 days' notice prior to the cancellation of any such policy). Each certificate of insurance will contain or be accompanied by a certificate of the insurer that the policies shown in the certificate may not be canceled or modified without 30 days' prior notice to Sublessor, Sublessor's property manager, and each person that is required to be notified under the Master Lease.

(f) On each occasion on which the Landlord reserves the right to enter the Subleased Premises in the Master Lease, this right will run in favor of Sublessor as well as Landlord.

(g) On each occasion on which Landlord is obligated to perform work, repairs, repainting, or restoration, to supply services, or to perform any other obligations under the Master Lease or by law, the Sublessor's sole obligation with respect thereto under this Agreement shall be (i) to request that Landlord perform these obligations after Sublessor has received a written request from Subtenant that Landlord perform these obligations, and (ii) to use its reasonable efforts to obtain this performance from the Landlord.

(h) Subtenant shall not sublease or assign its rights under this Agreement or permit any other person or entity to occupy the Subleased Premises without Sublessor's prior consent, which consent shall be subject to such conditions, requirements, and documentation as Sublessor may determine in its discretion. Any sublease or assignment shall also be subject to all consents, restrictions and requirements set out in the Master Lease. In no event shall any sub-sublease or assignment of Subtenant's rights under this Agreement release Subtenant from any of its obligations or liabilities under this Agreement.

14. **Default**. The occurrence of any one or more of the following events shall, at Sublessor's option, be an event of default ("Event of Default") under this Agreement:

(a) Subtenant fails to pay any rent on the date on which it is due and this failure continues for 5 days after notice by Subtenant of this failure (provided that if Subtenant fails to pay rent when due on two occasions during a twelve-month period and if Sublessor gives Subtenant notice of this failure on these occasions, then an Event of Default will occur immediately, without any notice or opportunity to cure, if during the same twelve-month period, Subtenant again fails to pay any rent on the date on which it is due); or

(b) Subtenant (x) fails to keep in effect any of the insurance required under this Sublease, with no notice or opportunity to cure, or (y) fails to provide Sublessor or Landlord with a certificate of insurance or evidence of payment of insurance premiums at any time when required, and Subtenant fails to cure this failure described in (y) within 5 days after notice by Sublessor to Subtenant of this failure;

(c) Subtenant fails to perform or violates any of the obligations under the Master Lease that Subtenant is obligated to perform or not to violate and this failure to perform or violation is of such a nature that it will permit the Landlord to terminate the Master Lease if it continues; or

(d) Subtenant fails to comply with any of its obligations under this Agreement when this compliance is due, and this failure continues for 30 days after notice by Sublessor to Subtenant of this failure (provided that if two such failures occur during any twelve-month period and if Sublessor gives Subtenant notice of the failure on each occasion, then an Event of Default will occur immediately, and without notice or opportunity to cure, if during the same twelve-month period, Subtenant again violates or fails to comply with the same or any other provision of this Agreement); or

(e) Subtenant becomes insolvent or files a voluntary petition in bankruptcy or a petition for involuntary reorganization or bankruptcy is filed against Subtenant, or Subtenant is dissolved or adjudicated bankrupt, or a receiver is appointed for Subtenant's business or its assets, or Subtenant makes an assignment for the benefit of its creditor.

15. **Sublessor's Remedies**. Upon the occurrence of an Event of Default, Sublessor may proceed at its option: (i) to keep this Agreement in effect, reserving its right to proceed later for the remaining installments of rent as they become due, and at Sublessor's option, proceed for specific performance and/or an injunction to enforce specific provisions of this Agreement; or (ii) declare all of the unpaid installments of monthly rent for the remainder of the term at once due and payable, with each monthly rent installment being discounted to present value at the rate of 3% per annum (the "Discount Rate"), whereupon this entire amount shall become and be immediately due and payable, with this Agreement remaining in effect, Subtenant remaining obligated to perform all other obligations this Agreement, and Sublessor reserving the right to collect all additional amounts that become due; (iii) terminate this Agreement by notice to Subtenant, and in that event, this Agreement will terminate on the date designated by Sublessor in its termination notice, and Subtenant will remain liable as provided below; and/or (iv) enforce any or all other rights or remedies provided in this Agreement or permitted by law. All rights and remedies of Sublessor under this Agreement shall be cumulative, and none shall exclude any other right or remedy allowed by this Agreement or by law.

If Sublessor elects option (iii) and terminates this Agreement, then Sublessor may release the Subleased Premises for such price and on such terms as may be immediately obtainable, and Subtenant will be and remain liable, not only for all rent due and other obligations incurred up to the termination date of this Lease and for all damages that accrue until Subtenant vacates or is removed from the Subleased Premises, but also for stipulated or liquidated damages for its nonperformance equal to the sum of (a) all expenses that Sublessor incurs in re-entering and re-possessing the Subleased Premises, putting the Subleased Premises in proper repair, curing Subtenant's defaults, removing improvements and Subtenant's property and reletting the Subleased Premises, including reasonable attorney's fees and disbursements, actual sheriff's fees, and market-rate brokerage fees incurred in this re-leasing, plus the amount by which the aggregate of all monthly rent that Sublessor was to have received under this Agreement from the date on which Subtenant vacated or was removed from the Subleased Premises to the term expiration, exceeds the fair market value of the Subleased Premises during this period.

In addition to, and not instead of the above remedies, if Subtenant fails to perform any of its obligations under this Agreement when its performance is due, then Sublessor will have the right, but not the obligation, to pay all sums and take all actions that are necessary or desirable to perform Subtenant's obligations. If Sublessor elects to perform Subtenant's obligations, then Subtenant will reimburse Sublessor for the costs incurred by Sublessor in doing so, plus an additional 15% of these costs to reimburse Sublessor for its administrative expense, within 5 days after demand. The performance by Sublessor of Subtenant's obligations will not be construed as a modification or waiver of any provision of this Agreement and these obligations will remain the obligations of Subtenant. In addition, neither the performance of Subtenant's obligation by Sublessor nor Sublessor's failure to perform obligations will preclude Sublessor from exercising any of its rights or remedies set out in this Agreement or by law by reason of Subtenant's default.

16. **Additional Termination Right**. Notwithstanding the provisions of Sections 9 and 10 of this Agreement, each of Subtenant and Sublessor shall have the right to terminate this Agreement upon providing ninety (90) days prior written notice to the other party; provided, however, that any such notice shall not be provided earlier than the date occurring ninety (90) days after the Commencement Date.

17. **Notices**. Any notice or other communication required or permitted to be given under this Agreement by Subtenant to Sublessor shall be in writing and shall be delivered in person or sent by United States Certified or Registered Mail, postage prepaid, return receipt requested, and addressed to Sublessor at the place where rent is required to be paid hereunder. Any notice or other communication required or permitted to be given under this Agreement by Sublessor to Subtenant shall be in writing and shall be delivered in person or sent by United States Certified or Registered Mail, postage prepaid, return receipt requested, addressed to Subtenant at the Subleased Premises. Each notice or communication shall be deemed to have been given as of the date so mailed or delivered, as the case may be.

18. **Interest; Late Charges**. Any amount due to Sublessor that is not paid when due shall bear interest at the rate of 12% per annum (the "Default Rate") from the date due, until paid in full. In addition, if Subtenant fails to pay any amount due under this Agreement within 5 days after the due date, then in addition to the amount due, Subtenant shall pay Sublessor a late charge equal to 6% of the amount due. Payment of this interest and this late charge shall not excuse or cure any default by Subtenant under this Agreement or be construed as a waiver of Sublessor's right to enforce any other remedies with respect to any other provisions of this Agreement.

19. **Attorneys' Fees**. In the event of a default or breach of this Agreement the nondefaulting party shall be entitled to any and all remedies allowed at law or in equity, including without limitation, specific performance and the recovery of all damages, costs and expenses incurred by the nondefaulting party as a result of such breach or default and including the recovery of all reasonable legal fees, costs and expenses incurred by such nondefaulting party in enforcing their rights hereunder.

20. **Hazardous Materials; Mold**. Subtenant represents and warrants that it will use the Subleased Premises for executive offices only and not for laboratory use of any kind. Subtenant shall not introduce any unlawful or unpermitted levels of any asbestos, petroleum products, or hazardous, infectious, or toxic materials, substances, or solid wastes (collectively, "Hazardous Materials") into the Subleased Premises, the water supply or other utilities or drainage system supporting the Subleased Premises, or any property adjoining the Subleased Premises, and shall not introduce any mold or bacterial or fungal matter into the Subleased Premises that is harmful to humans. With respect to Hazardous Materials, if any, that are necessary for the normal operation of the permitted use of the Subleased Premises, Subtenant shall comply, at its expense, with the Master Lease and with all applicable laws ordinances, rules, and regulations of all federal, state, and local government authorities ("Laws") pertaining to the transportation, storage, handling, treatment, emission, use, or disposal of these Hazardous Materials, including, without limitation, the obtaining of any necessary permits, and in no event shall Subtenant dispose of Hazardous Materials on the Subleased Premises. Subtenant agrees to notify Sublessor immediately of any claim, loss or damage resulting from the actual or alleged presence of Hazardous Materials or mold or bacterial or fungal matter on the Subleased Premises, and in such event, Subtenant shall, at Subtenant's expense, and after consultation with and approval by Sublessor, remove all such Hazardous Materials and all such mold and bacterial and fungal matter from the Subleased Premises in accordance with all applicable Laws, but Subtenant shall only be obligated to do so to the extent Subtenant actually introduced such Hazardous Materials or such mold, bacterial or fungal matter into the Subleased Premises. Subtenant shall furthermore indemnify, defend and hold Sublessor and its property manager and their respective agents, employees, contractors, successors and assigns, harmless from and against any penalties, claims, injunctions, suits, causes of action, costs and fees, including attorneys' fees, arising from or connected with any Hazardous Materials and any and all mold and fungal matter, in each case to the extent the same was introduced into the Subleased Premises by Subtenant. This provision shall survive the termination of this Agreement.

21. **Miscellaneous**. The section and paragraph captions and headings are for convenience of reference only and in no way shall be used to constitute or modify the provisions set forth in this Agreement. If more than one person signs this Agreement as Subtenant, each signatory shall be included in the term "Subtenant" and shall be liable for all obligations of the Subtenant under this Agreement; that is, each signatory will be liable for all obligations as if it was the only person that signed this Agreement as the Subtenant. The term "days" will mean calendar days unless "business days" are stated. "Business days" will mean days on which banks in the county in which the Subleased Premises are located are open for business. The term "person" will mean any person, corporation, partnership, limited liability company, or other entity. If there is any conflict between the printed portions and the typewritten or handwritten portions of this Agreement, the typewritten or handwritten portions shall prevail. This Agreement shall be governed by and construed in accordance with California law. All terms and words used in this Agreement, regardless of their number and gender, shall be deemed and construed to include any other number, singular or plural, and any other gender masculine, feminine, or neuter, as the context may require.

22. **Subject to Landlord's Consent**. The Master Lease requires that the Landlord consent to subleases. Accordingly this Agreement shall be null and void unless written consent to this Agreement is granted by the Landlord on or prior to the Commencement Date.

Dated the date and year first above written.

SUBLESSOR:

XDx, Inc.,
a Delaware Corporation

By: /s/ Peter Maag
Name: Peter Maag
Title: CEO

Date of Execution: January 11, 2013

SUBTENANT:

Atara Biotherapeutics, Inc.,
a Delaware corporation

By: /s/ Isaac Ciechanover
Name: Isaac Ciechanover
Title: CEO

Date of Execution: January 10, 2013

EXHIBIT A

LEASE

by and between

BMR-BAYSHORE BOULEVARD LLC,
a Delaware limited liability company

and

EXPRESSION DIAGNOSTICS, INC.,
a Delaware corporation

LEASE

THIS LEASE (this "Lease") is entered into as of April 27, 2006, by and between BMR-BAYSHORE BOULEVARD LLC, a Delaware limited liability company ("Landlord"), and EXPRESSION DIAGNOSTICS, INC., a Delaware corporation ("Tenant"). The date on which this Lease has been executed by both parties hereto is referred to herein as the "Effective Date."

RECITALS

A. WHEREAS, Landlord owns ce1iain real property (the "Property") and the buildings improvements thereon located at 3260 Bayshore Boulevard in Brisbane, California, including the building located thereon (the "Building") in which the Premises (as defined below) are located; and

B. WHEREAS, Landlord wishes to lease to Tenant, and Tenant desires to lease from Landlord, certain premises (the "Premises") located in the Building, pursuant to the terms and conditions of this Lease, as detailed below.

AGREEMENT

NOW, THEREFORE, Landlord and Tenant, in consideration of the mutual promises contained herein and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and intending to be legally bound, agree as follows:

1. Lease of Premises. Landlord hereby leases to Tenant, and Tenant hereby leases from Landlord, the Premises, which consist of (a) the portion of the first (1st) floor of the Building shown on Exhibit A attached hereto and (b) the second (2nd) floor of the Building. The Property and all landscaping, parking facilities and other improvements and appurtenances related thereto, including, without limitation, the Building (but excluding other buildings), are hereinafter collectively referred to as the "Project." All portions of the Project that are for the non-exclusive use of tenants of the Building, including, without limitation, driveways, sidewalks, parking areas, landscaped areas, service corridors, stairways, elevators, public restrooms and Building lobbies, are hereinafter referred to as "Common Area."

2. Basic Lease Provisions. For convenience of the parties, certain basic provisions of this Lease are set forth herein. The provisions set forth herein are subject to the remaining terms and conditions of this Lease and are to be interpreted in light of such remaining terms and conditions.

2.1. This Lease shall take effect upon the date of execution and delivery hereof by all parties hereto and, except as specifically otherwise provided within this Lease, each of the provisions hereof shall be binding upon and inure to the benefit of Landlord and Tenant from the date of execution and delivery hereof by all parties hereto.

2.2. Rentable Area of Premises: 46,034 sq. ft.

2.3. Rentable Area of Building: 61,444 sq. ft.

2.4. [Intentionally omitted]

2.5. [Intentionally omitted]

2.6. Basic Annual Rent:

Months	Square Feet	Lease Rate/Per Month
1-3	30,000	Free
4-12	35,000	$ 2.15 NNN
13-24	40,000	$ 2.15 NNN
25-36	46,034	$ 2.20 NNN
37-48	46,034	$ 2.30 NNN
49-60	46,034	$ 2.35 NNN
61-72	46,034	$ 2.40 NNN
73-84	46,034	$ 2.45 NNN

2.7. [Intentionally omitted]

2.8. Tenant's Pro Rata Share: 74.92% of the Building

2.9. Estimated Term Commencement Date: November 1, 2006

2.10. Estimated Term Expiration Date: October 31, 2013

2.11. Security Deposit: $197,946, subject to decrease in accordance with the terms hereof

2.12. Permitted Use: General office and laboratory, research and development and all related uses in conformity with Applicable Laws (as defined below)

2.13. Address for Rent Payment:
BMR-Bayshore Boulevard LLC
Unit D
P.O. Box 51918
Los Angeles, California 90051-6218

2.14. Address for Notices to Landlord:
BMR-Bayshore Boulevard LLC
17140 Bernardo Center Drive, Suite 222
San Diego, California 92128
Attn: General Counsel

2.15. Address for Notices to Tenant:
Prior to the Term Commencement Date:

Expression Diagnostics, Inc.
750 Gateway Blvd., Suite H
South San Francisco, CA 94080
Attn: Chief Financial Officer

After the Term Commencement Date:

Expression Diagnostics, Inc.
3260 Bayshore Blvd.
Brisbane, CA 94005
Attn: Chief Financial Officer

2.16. The following Exhibits are attached hereto and incorporated herein by reference:

Exhibit A	Premises
Exhibit B	Acknowledgement of Term Commencement Date and Term Expiration Date
Exhibit C	[Intentionally omitted]
Exhibit D	Rules and Regulations
Exhibit E	Form of Estoppel Certificate
Exhibit F	Form of Subordination, Non-Disturbance and Attornment Agreement
Exhibit G	Work Letter

3. Term.

3.1. This Lease shall take effect upon the date of execution and delivery hereof by all parties hereto and, except as specifically otherwise provided within this Lease, each of the provisions hereof shall be binding upon and inure to the benefit of Landlord and Tenant from the date of execution and delivery hereof by all parties hereto.

3.2. The actual term of this Lease (the "Term") shall be that period from the actual Term Commencement Date as defined in Section 4.2 below through the Term Expiration Date, subject to earlier termination of this Lease as provided herein.

3.3. Tenant shall have the right to terminate this Lease at any time after the fifth (5th) anniversary of the Term Commencement Date upon twelve (12) months' prior written notice to Landlord; provided that Tenant shall pay to Landlord on or before the termination date (a) an early termination fee equal to six (6) months of the then-current Basic Annual Rent and (b) the unamortized portion of (i) any leasing commissions and (ii) any Tenant Improvements financed with the Additional TI Allowance (as defined below).

4. Possession and Commencement Date.

4.1. Landlord shall tender possession of the Premises within one (1) business day after the Effective Date. Landlord agrees to use commercially reasonable efforts to complete Landlord's Work (as defined below) within one hundred twenty (120) days after building permits are obtained for the improvements to be made to the Premises in accordance with this Lease. Tenant agrees that in the event Landlord's Work is not Substantially Complete (as defined below) within such one hundred twenty (120) day period after the Effective Date, then this Lease shall not be void or voidable and Landlord shall not be liable to Tenant for any loss or damage resulting therefrom. If Landlord fails to timely achieve Substantial Completion of Landlord's Work for any reason whatsoever, then Landlord shall have no liability to Tenant for

such failure, but the Term Commencement Date and the Term Expiration Date shall be extended accordingly; provided, however, that the Term Commencement Date and the Term Expiration Date shall not be extended to the extent that any delay in achieving Substantial Completion of Landlord's Work is caused by (a) the failure of Tenant or Tenant's architect to timely deliver any item in the Work Letter, (b) the actions or omissions of Tenant or its employees, agents, contractors or architects, or (c) a default by Tenant of its obligations under this Lease (each, a "Tenant Delay"). Landlord's Work shall be deemed "Substantially Complete" if Landlord has completed all of Landlord's Work, subject only to a punchlist of items that do not materially and substantially interfere with Tenant's construction of the Tenant Improvements (as defined below). Tenant shall deliver to Landlord promptly after Tenant's receipt thereof (y) a certificate of occupancy for the Premises suitable for the Permitted Use and (z) a Certificate of Substantial Completion in the form of the American Institute of Architects document 0704, executed by the project architect and the general contractor. "Landlord's Work" means (a) installation of a sliding or roll-up glass door (the "Door") to be used for shipping and receiving purposes in accordance with plans and specifications provided by Tenant, subject to Landlord's approval, (b) installation of demising walls to separate the Premises from the balance of the Building, (c) installation of separate meters or submeters for water and electricity provided to the Premises (provided that (i) Tenant shall have dedicated space in an electrical room in the Premises for any such meter or submeter, (ii) Landlord shall be responsible for reading any such meters and submeters and quantifying Tenant's use of such utilities for purposes of Tenant's reimbursement of the cost of such utilities to Landlord and (iii) Tenant shall provide to Landlord reasonable access to such meters and submeters for the purpose of Landlord's reading thereof), (d) installation of direct digital controls to measure air flow to the Premises from the HVAC system and (e) any work required to cause the Building heating, ventilation and air conditioning system, plumbing system and electrical system (collectively, the "Relevant Systems") to be in good working order and repair as of the Term Commencement Date. In the event that the Relevant Systems are not in good working order and repair as of the Term Commencement Date, Landlord shall make any repairs and material capital replacements to such Relevant Systems at Landlord's sole cost and expense; provided that such obligation shall not extend to customary maintenance or capital improvements. Landlord shall use commercially reasonable efforts to order the Door once Landlord and Tenant have approved the specifications therefor. Notwithstanding anything in this Lease or the Work Letter to the contrary, in the event that, despite such efforts by Landlord, the timing of delivery of the Door prevents Landlord from timely completing Landlord's Work, Tenant shall not be entitled to any remedies for such delay, including, without limitation, abatement of Rent, and Landlord shall, on or before the Term Commencement Date, install a temporary alternative to the Door that is reasonably satisfactory to Landlord and Tenant.

4.2. The "Term Commencement Date" shall be the later of (i) November 1, 2006 or (ii) the date on which Landlord's Work is Substantially Complete (or the date on which Landlord's Work would have been Substantially Complete absent Tenant Delay or Force Majeure (as defined below)); provided, however, that if the Term Commencement Date is not the first day of a calendar month, then the first lease year shall be extended through the last day of the calendar month in which the first 12-month period expires, and Rent for the additional period at the end of the first lease year shall be payable at the rate for the 12th month of the Term. "Force Majeure" means accident; breakage; repair; governmental regulation, moratorium or other governmental action. The "Term Expiration Date" shall be the day immediately preceding

the seventh (7th) anniversary of the Term Commencement Date, provided that if such preceding day is not the last day of a calendar month, then the Term Expiration Date shall be the last date of the calendar month in which such preceding day occurs. Landlord and Tenant shall each execute and deliver to the other written acknowledgment of the actual Term Commencement Date and the Term Expiration Date when such are established, and shall attach it to this Lease as Exhibit B. Failure to execute and deliver such acknowledgment, however, shall not affect the Term Commencement Date or Landlord's or Tenant's liability hereunder. Failure by Tenant to obtain validation by any medical review board or other similar governmental licensing of the Premises required for the Permitted Use by Tenant shall not serve to extend the Term Commencement Date.

4.3. Prior to entering upon the Premises, Tenant shall furnish to Landlord evidence satisfactory to Landlord that insurance coverages required of Tenant under the provisions of Section 21 are in effect, and such entry shall be subject to all the terms and conditions of this Lease other than the payment of Basic Annual Rent or Additional Rent (as defined below).

4.4. Possession of areas of the Premises necessary for utilities, services, safety and operation of the Building is reserved to Landlord.

4.5. Tenant shall cause to be constructed the tenant improvements in the Premises (the "Tenant Improvements") pursuant to the Work Letter at a cost to Landlord (the "Tenant Improvement Allowance") not to exceed Three Million Four Hundred Fifty-Two Thousand Five Hundred Fifty Dollars ($3,452,550) (based upon Seventy-Five Dollars ($75) per rentable square foot), which amount shall include the costs of (a) construction, (b) project management by Landlord (which fee shall equal Four Thousand Dollars ($4,000) per month, not to exceed Forty Thousand Dollars ($40,000) total), (c) space planning, architect, engineering and other related services and (d) building permits and other planning and inspection fees. If the total cost of the Tenant Improvements exceeds Seventy-Five Dollars ($75) per square foot of Rentable Area of the Premises, then the overage shall be paid by Tenant prior to the Term Commencement Date; provided, however that Tenant may withhold any retainage properly withheld by Tenant pursuant to its contract(s) with contractors and any other amounts to which Landlord approves in advance in writing, which approval Landlord shall not unreasonably withhold, condition or delay (collectively, the "Excluded Amounts"); provided, further, that Tenant shall pay the Excluded Amounts when required by such contract(s) or by Applicable Laws (as defined below). Tenant shall have until December 31, 2007, to expend the unused portion of the Tenant Improvement Allowance, after which date Landlord's obligation to fund such costs shall expire. Any unused portion of the Tenant Improvement Allowance shall be credited against Tenant's obligation to pay Rent, with such unused amount amortized over the Initial Term of this Lease and resulting in corresponding reductions in Tenant's obligation to pay monthly installments of Basic Annual Rent. As used herein, the term "Initial Term" shall mean the period commencing on the Term Commencement Date and expiring on the Term Expiration Date.

4.6. The selection of the architect, engineer, general contractor and major subcontractors shall be in accordance with the terms of the Work Letter.

4.7. In addition to the Tenant Improvement Allowance, Landlord shall make available to Tenant Nine Hundred Twenty Thousand Six Hundred Eighty Dollars ($920,680), based upon

Twenty Dollars ($20) per rentable square foot (the "Additional TI Allowance") for construction of the initial Tenant Improvements. Tenant shall repay to Landlord, in equal monthly installments as Additional Rent (as defined below), the Additional TI Allowance amortized over the Initial Term of the Lease at an interest rate of nine percent (9%).

5. Rent.

5.1. Tenant shall pay to Landlord as Basic Annual Rent for the Premises, commencing on the Term Commencement Date, the sum set forth in Section 2.6. Basic Annual Rent shall be paid in equal monthly installments, each in advance on the first day of each and every calendar month during the Term.

5.2. In addition to Basic Annual Rent, Tenant shall pay to Landlord as additional rent ("Additional Rent") at times hereinafter specified in this Lease (a) Tenant's pro rata share, as set forth in Section 2.8 ("Tenant's Pro Rata Share"), of Operating Expenses as provided in Section 7 and (b) any other amounts that Tenant assumes or agrees to pay under the provisions of this Lease that are owed to Landlord, including, without limitation, any and all other sums that may become due by reason of any default of Tenant or failure on Tenant's part to comply with the agreements, terms, covenants and conditions of this Lease to be performed by Tenant, after notice and the lapse of any applicable cure periods.

5.3. Basic Annual Rent and Additional Rent shall together be denominated "Rent." Rent shall be paid to Landlord, without abatement, deduction or offset, in lawful money of the United States of America at the office of Landlord as set forth in Section 2.13 or to such other person or at such other place as Landlord may from time designate in writing. In the event the Term commences or ends on a day other than the first day of a calendar month, then the Rent for such fraction of a month shall be prorated for such period on the basis of a thirty (30) day month and shall be paid at the then-current rate for such fractional month.

6. [Intentionally omitted]

7. Operating Expenses.

7.1. As used herein, the term "Operating Expenses" shall include:

(a) Government impositions including, without limitation, property tax costs consisting of real and personal property taxes and assessments, including amounts due under any improvement bond upon the Building or the Project, including the parcel or parcels of real property upon which the Building and areas serving such Building are located or assessments in lieu thereof imposed by any federal, state, regional, local or municipal governmental authority, agency or subdivision (each, a "Governmental Authority") are levied; taxes on or measured by gross rentals received from the rental of space in the Building; taxes based on the square footage of the Premises, the Building or the Project, as well as any parking charges, utilities surcharges or any other costs levied, assessed or imposed by, or at the direction of, or resulting from Applicable Laws (as defined below) or interpretations thereof, promulgated by any Governmental Authority in connection with the use or occupancy of the Building or the parking facilities serving the Building; taxes on this transaction or any document to which Tenant is a party creating or transferring an interest in the Premises; any fee for a business license to operate

an office building; and any expenses, including the reasonable cost of attorneys or experts, reasonably incurred by Landlord in seeking reduction by the taxing authority of the applicable taxes, less tax refunds obtained as a result of an application for review thereof. Operating Expenses shall not include any net income, franchise, capital stock, estate or inheritance taxes, or taxes that are the personal obligation of Tenant or of another tenant of the Project; and

(b) All other costs of any kind paid or incurred by Landlord in connection with the operation or maintenance of the Building and the Project including, by way of example and not of limitation, costs of repairs and replacements to improvements within the Project as appropriate to maintain the Project as required hereunder; costs of utilities furnished to the Common Areas; sewer fees; cable television; trash collection; cleaning, including windows; heating; ventilation; air-conditioning; maintenance of landscaping and grounds; maintenance of drives and parking areas; maintenance of the roof; security services and devices; building supplies; maintenance or replacement of equipment utilized for operation and maintenance of the Project; license, permit and inspection fees; sales, use and excise taxes on goods and services purchased by Landlord in connection with the operation, maintenance or repair of the Project or Building systems and equipment; telephone, postage, stationary supplies and other expenses incurred in connection with the operation, maintenance or repair of the Project; accounting, legal and other professional fees and expenses incurred in connection with the Project; costs of furniture, draperies, carpeting, landscaping and other customary and ordinary items of personal property provided by Landlord for use in Common Areas; the cost of any Allowable Capital Improvements (as defined below), the cost of which is less than or equal to Twenty-Five Thousand Dollars ($25,000); the cost of any Allowable Capital Improvements (as defined below), the cost of which is greater than Twenty-Five Thousand Dollars ($25,000), amortized over their useful lives as Landlord shall reasonably determine; costs of complying with any federal, state, municipal or local laws and regulations, including both statutory and common law and hazard waste rules and regulations ("Applicable Laws"); insurance premiums, including premiums for public liability, property casualty, earthquake and environmental coverages; portions of insured losses paid by Landlord as part of the deductible portion of a loss pursuant to the terms of insurance policies (provided, however, that Landlord shall maintain commercially reasonable insurance deductibles, which, as of the date hereof, do not exceed Ten Thousand Dollars ($10,000) per incident); service contracts; costs of services of independent contractors retained to do work of a nature referenced above; and costs of compensation (including employment taxes and fringe benefits) of all persons who perform regular and recurring duties connected with the day-to-day operation and maintenance of the Project, its equipment, the adjacent walks, landscaped areas, drives and parking areas, including, without limitation, janitors, floor waxers, window washers, watchmen, gardeners, sweepers and handymen. As used herein, the term "Allowable Capital Improvements" shall mean capital improvements that are reasonably required to keep the Building or the Project (excluding any other buildings) in good condition and repair or to comply with any Applicable Laws enacted or otherwise first effective after the Term Commencement Date; provided, however, that Allowable Capital Improvements shall exclude any capital improvements to the extent that they exceed both (i) the standard of construction used for the Building or the Project, as applicable, when originally built and (ii) the standard of construction that is consistent with then-existing prudent industry practices, in each case except to the extent that upgrades are required by any Applicable Laws.

Notwithstanding the foregoing, Operating Expenses shall not include any leasing commissions or finders' fees; attorneys' fees, advertising costs, space planning costs and other costs incurred by Landlord in leasing or attempting to lease space in the Building or the Project; expenses that relate to preparation of rental space for a tenant; expenses of initial development and construction, including, but not limited to, grading, paving, landscaping and decorating (as distinguished from maintenance, repair and replacement of the foregoing); legal expenses, accountants' fees and other costs and expenses incurred in connection with negotiations or disputes with past, present or prospective tenants; costs of repairs to the extent reimbursed by tenants (other than as their pro rata share of operating expenses pursuant to their respective leases), warrantors or other third parties or by payment of insurance or condemnation proceeds received by Landlord or to the extent such costs would have been reimbursed had Landlord obtained the insurance policies that Landlord is required to carry pursuant to this Lease; interest and principal upon loans to Landlord or secured by a mortgage or deed of trust covering the Project or a portion thereof and other debt costs (provided that interest upon a government assessment or improvement bond payable in installments shall constitute an Operating Expense under Subsection 7.1(a)); rental under any ground or underlying lease; depreciation on the Building; salaries of executive officers of Landlord; depreciation claimed by Landlord for tax purposes and other "non cash" items (provided that this exclusion of depreciation is not intended to delete from Operating Expenses actual costs of repairs and replacements and reasonable reserves in regard thereto that are provided for in Subsection 7.1(a)); taxes of the types set forth in Subsection 7.1(a); costs, fines, interest and penalties incurred due to the late payment of taxes of the types set forth in Subsection 7.1(a); any bad debt loss or rent loss; the cost of any services in the Building or the Project provided by Landlord or any Landlord affiliate to the extent the same materially exceeds the costs of such services rendered by qualified, unaffiliated third parties on a competitive basis in the Brisbane area; costs arising from the presence of Hazardous Materials in or about the Building or the Project that were present at the Building or the Project prior to the Term Commencement Date (other than those present as a result of the acts or omissions of Tenant or its employees, agents, consultants or contractors) or costs arising from the use, disposal or release of Hazardous Materials by other tenants in the Building; and costs incurred in connection with the sale, financing or refinancing of the Building or the Project. Notwithstanding the foregoing, to the extent that any Common Area expenses benefit buildings in addition to the Building, Landlord agrees to include in Operating Expenses only that portion of such Common Area expenses that is reasonably allocated to the Building.

7.2. Tenant shall pay to Landlord on the first day of each calendar month of the Term, as Additional Rent, (a) the Property Management Fee (as defined below) and (b) Landlord's estimate of Tenant's Pro Rata Share of Operating Expenses with respect to the Building and the Project, as applicable, for such month.

(a) The "Property Management Fee" shall equal two percent (2%) of the Basic Annual Rent due from Tenant.

(b) Within ninety (90) days after the conclusion of each calendar year (or such longer period as may be reasonably required by Landlord), Landlord shall furnish to Tenant a statement showing in reasonable detail the actual Operating Expenses and Tenant's Pro Rata Share of Operating Expenses for the previous calendar year. Any additional sum due from Tenant to Landlord shall be immediately due and payable. If the amounts paid by Tenant

pursuant to this Section 7.2 exceed Tenant's Pro Rata Share of Operating Expenses for the previous calendar year, then Landlord shall credit the difference against the Rent next due and owing from Tenant; provided that, if the Lease term has expired, Landlord shall accompany said statement with payment for the amount of such difference.

(c) Any amount due under this Section 7.2 for any period that is less than a full month shall be prorated (based on a thirty (30)-day month) for such fractional month.

7.3. Landlord's annual statement shall be final and binding upon Tenant unless Tenant, within ninety (90) days after Tenant's receipt thereof, shall contest any item therein by giving written notice to Landlord, specifying each item contested and the reasons therefor. If, during such ninety (90)-day period, Tenant reasonably and in good faith questions or contests the correctness of Landlord's statement of Tenant's Pro Rata Share of Operating Expenses, Landlord shall provide Tenant with access to Landlord's books and records and such information as Landlord reasonably determines to be responsive to Tenant's questions. In the event that, after Tenant's review of such information, Landlord and Tenant cannot agree upon the amount of Tenant's Pro Rata Share of Operating Expenses, then Tenant shall have the right to have an independent public accounting firm hired by Tenant (at Tenant's sole cost and expense, unless the Independent Review indicates that Landlord overstated the Operating Expenses by more than five percent (5%) of the actual Operating Expenses, in which event Landlord shall reimburse Tenant for the fees and costs of the Independent Review) and approved by Landlord (which approval Landlord shall not unreasonably withhold or delay) audit and review such of Landlord's books and records for the year in question (the "Independent Review"). The results of any such Independent Review shall be binding on Landlord and Tenant. If the Independent Review shows that Tenant's Pro Rata Share of Operating Expenses actually paid for the calendar year in question exceeded Tenant's obligations for such calendar year, then Landlord shall, at Tenant's option, either (a) credit the excess to the next succeeding installments of estimated Additional Rent or (b) pay the excess to Tenant within thirty (30) days after delivery of such results. If the Independent Review shows that Tenant's payments of Tenant's Pro Rata Share of Operating Expenses for such calendar year were less than Tenant's obligation for the calendar year, then Tenant shall pay the deficiency to the Landlord within thirty (30) days after delivery of such results.

7.4. Tenant shall not be responsible for Operating Expenses attributable to the time period prior to the Term Commencement Date; provided, however, that if Landlord shall permit Tenant possession of the Premises prior to the Term Commencement Date, Tenant shall be responsible for Operating Expenses from such earlier date of possession. Tenant's responsibility for Tenant's Pro Rata Share of Operating Expenses shall continue to the latest of (a) the date of termination of the Lease, (b) the date Tenant has fully vacated the Premises or (c) if termination of the Lease is due to a default by Tenant, the date of rental commencement of a replacement tenant.

7.5. Operating Expenses for the calendar year in which Tenant's obligation to share therein commences and for the calendar year in which such obligation ceases shall be prorated on a basis reasonably determined by Landlord. Expenses such as taxes, assessments and insurance premiums that are incurred for an extended time period shall be prorated based upon the time periods to which they apply so that the amounts attributed to the Premises relate in a reasonable manner to the time period wherein Tenant has an obligation to share in Operating Expenses.

8. Rentable Area.

8.1. The term "Rentable Area" as set forth in Section 2 and as may otherwise be referenced within this Lease reflects such areas as have been reasonably calculated by Landlord's architect.

8.2. The "Rentable Area" of the Building has generally been determined by making separate calculations of Rentable Area applicable to each floor within the Building and totaling the Rentable Area of all floors within the Building. The Rentable Area of a floor has been computed by measuring to the outside finished surface of the permanent outer Building walls. The full area calculated as previously set forth is included as Rentable Area, without deduction for columns and projections or vertical penetrations, including stairs, elevator shafts, flues, pipe shafts, vertical ducts and the like, as well as such items' enclosing walls.

8.3. The Rentable Area of the Project is the total Rentable Area of all buildings within the Project.

8.4. The term "Rentable Area," when applied to the Premises, is that area equal to the usable area of the Premises, plus an equitable allocation of Rentable Area within the Building that is not then utilized or expected to be utilized as usable area, including, but not limited to, that portion of the Building devoted to corridors, equipment rooms, restrooms, elevator lobby, atrium and mailroom. In making such allocations, consideration has been given to tenants benefited by space allocated such that the area that primarily serves tenants of only one floor, such as corridors and restrooms upon such floor, has been allocated to usable area of the Building as a whole.

8.5. The Rentable Areas set forth Section 2 have been agreed to by Landlord and Tenant and shall not be subject to adjustment, unless Tenant exercises its right to expand the Premises pursuant to Section 43 below.

9. Security Deposit.

9.1. No later than thirty (30) days after the Effective Date (time being of the essence), Tenant shall deposit with Landlord either a letter of credit (the "Letter of Credit") or immediately available funds (the "Cash Deposit") in the amount set forth in Section 2.11, which Letter of Credit or Cash Deposit shall be held by Landlord as security for the faithful performance by Tenant of all of the terms, covenants and conditions of this Lease to be kept and performed by Tenant during the period beginning on the Effective Date and ending upon the expiration or earlier termination of the Lease; provided, however, that if Tenant deposits with Landlord the Cash Deposit, then Landlord agrees to return the Cash Deposit to Tenant within two (2) business days after Landlord's receipt of the Letter of Credit. Landlord shall be entitled to use the Cash Deposit in any circumstance where Landlord would be entitled to draw upon the Letter of Credit under this Lease. The Letter of Credit shall be (a) in a form reasonably acceptable to Landlord, (b) issued by a financial institution selected by Tenant and reasonably acceptable to Landlord, (c) for the benefit of Landlord, but assignable by Landlord to any subsequent purchaser or

encumbrancer of the Building or the Project, (d) automatically renewable from year to year throughout the Term, (e) payable by sight draft in a location reasonably acceptable to Landlord upon presentation of a certification signed by an officer of Landlord stating that a Default under this Lease has occurred and has not been cured within any applicable cure period and (f) payable in the event such Letter of Credit is not renewed on or before the date that is thirty (30) days prior to its expiration. If there is a Default by Tenant with respect to any provision of this Lease, including, but not limited to, any provision relating to the payment of Rent, then Landlord may (but shall not be required to) draw upon the Letter of Credit and use, apply or retain any amount drawn for the payment of any Rent or any other sum in default, or to compensate Landlord for any other loss or damage that Landlord may suffer by reason of Tenant's Default. If the Letter of Credit is so drawn, then Tenant shall, within ten (10) days after such draw, replace the Letter of Credit with a new letter of credit conforming to the requirements of this Section 9.1, at Tenant's sole cost and expense. Tenant's failure to do so shall be a material breach of this Lease.

9.2. In the event of bankruptcy or other debtor-creditor proceedings against Tenant, the Security Deposit shall be deemed to be applied first to the payment of Rent and other charges due Landlord for all periods prior to the filing of such proceedings.

9.3. Landlord may deliver to any purchaser of Landlord's interest in the Premises the funds deposited hereunder by Tenant, and thereupon Landlord shall be discharged from any further liability with respect to such deposit. This provision shall also apply to any subsequent transfers.

9.4. If no Default or Imminent Default (as defined below) by Tenant has occurred on or before the date that is three (3) years after the Term Commencement Date, then Tenant may reduce the amount of the Letter of Credit to Ninety-Eight Thousand Nine Hundred Seventy-Three Dollars ($98,973), at no cost to Landlord; provided, however, that if Landlord does not allow the Letter of Credit to be so reduced as the result of an Imminent Default by Tenant, then Landlord agrees to notify Tenant of such Imminent Default and if Tenant cures such Imminent Default within the cure period provided in Section 24.4 below, if any, then immediately upon completion of such cure Tenant may reduce the amount of the Letter of Credit to Ninety-Eight Thousand Nine Hundred Seventy-Three Dollars ($98,973), at no cost to Landlord. If there is no uncured Default or Imminent Default by Tenant as of the expiration or earlier termination of this Lease, then the Letter of Credit shall be returned to Tenant (or, at Landlord's option, to the last assignee of Tenant's interest hereunder) within thirty (30) days after the expiration or earlier termination of this Lease; provided, however, that if Landlord does not so return the Letter of Credit as the result of an Imminent Default by Tenant, then Landlord agrees to notify Tenant of such Imminent Default and, if Tenant cures such Imminent Default within the cure period provided in Section 24.4 below, if any, then Landlord shall return the Letter of Credit to Tenant (or, at Landlord's option, to the last assignee of Tenant's interest hereunder) within thirty (30) days after the completion of such cure. As used in this Lease, the term "Imminent Default" shall mean the occurrence of an event that with the giving of notice or the passage of time or both would constitute a Default.

10. Use.

10.1. Tenant shall use the Premises for the purpose set forth in Section 2.12, and shall not use the Premises, or permit or suffer the Premises to be used, for any other purpose without Landlord's prior written consent, which consent Landlord may withhold in its sole and absolute discretion.

10.2. Tenant shall not use or occupy the Premises in violation of Applicable Laws; zoning ordinances; or the certificate of occupancy issued for the Building, and shall, upon five (5) days' written notice from Landlord, discontinue any use of the Premises that is declared or claimed by any Governmental Authority having jurisdiction to be a violation of any of the above, or that in Landlord's reasonable opinion violates any of the above. Tenant shall comply with any direction of any Governmental Authority having jurisdiction that shall, by reason of the nature of Tenant's use or occupancy of the Premises, impose any duty upon Tenant or Landlord with respect to the Premises or with respect to the use or occupation thereof.

10.3. Tenant shall not do or permit to be done anything that will invalidate or increase the cost of any fire, environmental, extended coverage or any other insurance policy covering the Building and the Project, and shall comply with all rules, orders, regulations and requirements of the insurers of the Building and the Project, and Tenant shall promptly, upon demand, reimburse Landlord for any additional premium charged for such policy by reason of Tenant's failure to comply with the provisions of this Section.

10.4. Tenant shall keep all doors opening onto public corridors closed, except when in use for ingress and egress.

10.5. No additional locks or bolts of any kind shall be placed upon any of the doors or windows by Tenant, nor shall any changes be made to existing locks or the mechanisms thereof without Landlord's prior written consent. Tenant shall, upon termination of this Lease, return to Landlord all keys to offices and restrooms either furnished to or otherwise procured by Tenant. In the event any key so furnished to Tenant is lost, Tenant shall pay to Landlord the cost of replacing the same or of changing the lock or locks opened by such lost key if Landlord shall deem it necessary to make such change.

10.6. No awnings or other projections shall be attached to any outside wall of the Building. No curtains, blinds, shades or screens shall be attached to or hung in, or used in connection with, any window or door of the Premises other than Landlord's standard window coverings. Neither the interior nor exterior of any windows shall be coated or otherwise sunscreened without Landlord's prior written consent, nor shall any bottles, parcels or other articles be placed on the windowsills. No equipment, furniture or other items of personal property shall be placed on any exterior balcony without Landlord's prior written consent.

10.7. No sign, advertisement or notice shall be exhibited, painted or affixed by Tenant on any part of the Premises or the Building without Landlord's prior written consent; provided that Tenant shall have the right to install a sign with its name and corporate logo on the exterior of the Building, the size, appearance and characteristics of which shall be subject to Landlord's prior written consent. Interior signs on doors and the directory tablet shall be inscribed, painted or affixed for Tenant by Landlord at Tenant's sole cost and expense, and shall be of a size, color and type acceptable to Landlord. The directory tablet shall be provided exclusively for the display of the name and location of tenants only. Tenant shall not place anything on the exterior of the corridor walls or corridor doors other than Landlord's standard lettering.

10.8. Tenant shall cause any office equipment or machinery to be installed in the Premises so as to reasonably prevent sounds or vibrations therefrom from extending into the Common Areas or other offices in the Building. Further, Tenant shall not place any equipment weighing five hundred (500) pounds or greater within the Premises without Landlord's prior written approval, and such equipment shall be placed in a location designed to carry the weight of such equipment.

10.9. Tenant shall not (a) do or permit anything to be done in or about the Premises that shall in any way obstruct or interfere with the rights of other tenants or occupants of the Building or the Project, or injure or unreasonably annoy them, or (b) use or allow the Premises to be used for immoral or unlawful purposes, nor shall Tenant knowingly cause, maintain or permit any nuisance or waste in, on or about the Premises, the Building or the Project.

10.10. Notwithstanding any other provision herein to the contrary, Tenant shall be responsible for all liabilities, costs and expenses arising out of or in connection with the compliance of the Premises with the Americans with Disabilities Act, 42 U.S.C. § 12101, et seq. (together with regulations promulgated pursuant thereto, the "ADA"), and Tenant shall indemnify, defend and hold harmless Landlord from and against any loss, cost, liability or expense (including reasonable attorneys' fees and disbursements) arising out of any failure of such improvements to comply with the ADA. Notwithstanding the foregoing, Landlord shall be responsible for all liabilities, costs and expenses arising out of or in connection with the compliance of the existing structural portions and tenant improvements of the Premises as of the date of this Lease, the "path of travel" into and within the Building (but not within the Premises, except as specifically described in this sentence) and the Project's parking lots, walkways and landscaping areas with the ADA, and Landlord shall indemnify, defend and hold harmless Tenant from and against any loss, cost, liability or expense (including reasonable attorneys' fees and disbursements) arising out of any failure of Landlord to make such aspects of the Project comply with the ADA. The provisions of this Section 10.10 shall survive the expiration or earlier termination of this Lease.

11. Brokers.

11.1. Tenant represents and warrants that it has had no dealings with any real estate broker or agent in connection with the negotiation of this Lease, other than CRESA Partners ("Broker"), and that it la1ows of no other real estate broker or agent that is or might be entitled to a commission in connection with this Lease. Landlord shall compensate Broker in relation to this Lease pursuant to a separate agreement between Landlord and Broker.

11.2. Tenant represents and warrants that no broker or agent has made any representation or warranty relied upon by Tenant in Tenant's decision to enter into this Lease, other than as contained in this Lease.

11.3. Tenant acknowledges and agrees that the employment of brokers by Landlord is for the purpose of solicitation of offers of leases from prospective tenants and that no authority is

granted to any broker to furnish any representation (written or oral) or warranty from Landlord unless expressly contained within this Lease. Landlord is executing this Lease in reliance upon Tenant's representations and warranties contained within Sections 11.1 and 11.2.

12. Holding Over.

12.1. If, with Landlord's prior written consent, Tenant holds possession of all or any part of the Premises after the Term, Tenant shall become a tenant from month to month after the expiration or earlier termination of the Term, and in such case Tenant shall continue to pay (a) the Basic Annual Rent in accordance with Section 5, and (b) Tenant's Pro Rata Share of Operating Expenses. Any such month-to-month tenancy shall be subject to every other term, covenant and agreement contained herein.

12.2. Notwithstanding the foregoing, if Tenant remains in possession of the Premises after the expiration or earlier termination of the Term without Landlord's prior written consent, Tenant shall become a tenant at sufferance subject to the terms and conditions of this Lease, except that the monthly rent shall be equal to (i) for the first two months of holdover, one hundred twenty-five percent (125%) of the Rent in effect during the last thirty (30) days of the Term, and (ii) thereafter, one hundred fifty percent (150%) of the Rent in effect during the last thirty (30) days of the Term.

12.3. Acceptance by Landlord of Rent after the expiration or earlier termination of the Term shall not result in an extension, renewal or reinstatement of this Lease.

12.4. The foregoing provisions of this Section 12 are in addition to and do not affect Landlord's right of reentry or any other rights of Landlord hereunder or as otherwise provided by Applicable Laws.

13. Taxes on Tenant's Property.

13.1. Tenant shall pay prior to delinquency any and all taxes levied against any personal property or trade fixtures placed by Tenant in or about the Premises.

13.2. If any such taxes on Tenant's personal property or trade fixtures are levied against Landlord or Landlord's property or, if the assessed valuation of the Building or the Property is increased by inclusion therein of a value attributable to Tenant's personal property or trade fixtures, and if Landlord, after written notice to Tenant, pays the taxes based upon any such increase in the assessed valued of the Building or the Project, then Tenant shall, upon demand, repay to Landlord the taxes so paid by Landlord.

13.3. If any improvements in or alterations to the Premises, whether owned by Landlord or Tenant and whether or not affixed to the real property so as to become a part thereof, are assessed for real property tax purposes at a valuation higher than the valuation at which improvements conforming to Landlord's building standards (the "Building Standard") in other spaces in the Building are assessed, then the real property taxes and assessments levied against Landlord or the Building by reason of such excess assessed valuation shall be deemed to be taxes levied against personal property of Tenant and shall be governed by the provisions of Section 13.2 above. Any such excess assessed valuation due to improvements in or alterations to

space in the Building leased by other tenants of Landlord shall not be included in the Operating Expenses defined in Section 7, but shall be treated, as to such other tenants, as provided in this Section 13.3. If the records of the County Assessor are available and sufficiently detailed to serve as a basis for determining whether said Tenant improvements or alterations are assessed at a higher valuation than the Building Standard, then such records shall be binding on both Landlord and Tenant.

14. Condition of Premises. Tenant acknowledges that neither Landlord nor any agent of Landlord has made any representation or warranty with respect to the condition of the Premises, the Building or the Project, or with respect to the suitability of the Premises, the Building or the Project for the conduct of Tenant's business, except as otherwise provided in Section 4.1 above. Tenant's taking of possession of the Premises shall, except as otherwise agreed to in writing by Landlord and Tenant, conclusively establish that the Premises, the Building and the Project were at such time in good, sanitary and satisfactory condition and repair.

15. Common Areas and Parking Facilities.

15.1. Tenant shall have the non-exclusive right, in common with others, to use the Common Areas, subject to the rules and regulations adopted by Landlord and attached hereto as Exhibit D, together with such other reasonable and nondiscriminatory rules and regulations as are hereafter promulgated by Landlord in its sole and absolute discretion (the "Rules and Regulations"). Tenant shall faithfully observe and comply with the Rules and Regulations. Landlord shall not be responsible to Tenant for the violation or non-performance by any other tenant or any agent, employee or invitee thereof of any of the Rules and Regulations.

15.2. Tenant shall have a non-exclusive license to use parking facilities serving the Building in common on an unreserved basis with other tenants of the Building and the Project at no additional cost to Tenant, at a ratio of three and three tenths (3.3) parking spaces per one thousand (1,000) square feet of Rentable Area of the Premises, which amounts to 152 parking spaces as of the Term Commencement Date, which number shall include eight (8) reserved parking spaces (the "Reserved Spaces") for Tenant's exclusive use on the side of the Building that faces Guadalupe Canyon Parkway (provided that (a) Tenant shall only have the right to have the Reserved Spaces on an exclusive basis for so long as Tenant provides services at the Premises to patients with heart conditions, (b) Tenant shall have the right to install signage marking the Reserved Spaces, subject to Landlord's prior written approval, which approval Landlord shall not unreasonably withhold, condition or delay, (c) Tenant shall maintain any such signage at its sole cost and expense and (d) Tenant shall remove any such signage at its sole cost and expense and repair any damage caused by such removal if Tenant is no longer entitled to exclusive use of the Reserved Spaces pursuant to the terms of this Section 15.2).

15.3. Subject to Tenant's rights under Section 15.2 above, Tenant agrees to comply with all reasonable rules and regulations adopted by Landlord with respect to the use of the parking facilities. Nothing in this Section, however, is intended to create an affirmative duty on Landlord's part to monitor parking.

15.4. Landlord reserves the right to modify the Common Areas, including the right to add or remove exterior and interior landscaping and to subdivide real property, provided that no

such modifications may have a material adverse impact on Tenant's access to or use and enjoyment of the Premises. Tenant acknowledges that Landlord specifically reserves the right to allow the exclusive use of corridors and restroom facilities located on specific floors to one or more tenants occupying such floors; provided, however, that Tenant shall not be deprived of the use of the corridors reasonably required to serve the Premises or of restroom facilities serving the floor upon which the Premises are located.

16. Utilities and Services.

16.1. Tenant shall pay for all water (including the cost to service, repair and replace reverse osmosis, de-ionized and other treated water), gas, heat, light, power, telephone and other utilities supplied to the Premises, together with any fees, surcharges and taxes thereon. If any such utility is not separately metered to Tenant, Tenant shall pay a reasonable proportion (to be determined by Landlord) of all charges of such utility jointly metered with other premises as part of Tenant's Pro Rata Share of Operating Expenses or, in the alternative, Landlord may, at its option, monitor the usage of such utilities by Tenant and charge Tenant with the cost of purchasing, installing and monitoring such metering equipment, which cost shall be paid by Tenant as Additional Rent.

16.2. Landlord shall not be liable for, nor shall any eviction of Tenant result from the failure to furnish any such utility or service due to Force Majeure. In the event of such failure, Tenant shall not be entitled to any abatement or reduction of Rent, nor shall Tenant be relieved from the operation of any covenant or agreement of this Lease.

16.3. Tenant shall pay for, prior to delinquency of payment therefor, any utilities and services that may be furnished to the Premises during or, if Tenant occupies the Premises after the expiration or earlier termination of the Term, after the Term.

16.4. Tenant shall not, without Landlord's prior written consent, use any device in the Premises (including, without limitation, data processing machines) that will in any way (a) increase the amount of ventilation, air exchange, gas, steam, electricity or water beyond the existing capacity of the Building as proportionately allocated to the Premises based upon Tenant's Pro Rata Share as usually furnished or supplied for the use set forth in Section 2.12 or (b) exceed Tenant's Pro Rata Share of the Building's capacity to provide such utilities or services.

16.5. If Tenant shall require utilities or services in excess of those usually furnished or supplied for tenants in similar spaces in the Building by reason of Tenant's equipment or extended hours of business operations, then Tenant shall first procure Landlord's consent of Landlord for the use thereof, which consent Landlord may condition upon the availability of such excess utilities or services, and Tenant shall pay as Additional Rent an amount equal to the cost of providing such excess utilities and services.

16.6. Utilities and services provided by Landlord to the Premises shall be paid by Tenant directly to the supplier of such utility or service.

16.7. Landlord shall provide water in Common Areas for drinking and lavatory purposes only; provided, however, that if Landlord determines that Tenant requires, uses or

consumes water for any purpose other than ordinary drinking and lavatory purposes, Landlord may install a water meter and thereby measure Tenant's water consumption for all purposes. Tenant shall pay Landlord for the costs of such meter and the installation thereof and, throughout the duration of Tenant's occupancy of the Premises, Tenant shall keep said meter and installation equipment in good working order and repair at Tenant's sole cost and expense. If Tenant fails to so maintain such meter and equipment, Landlord may repair or replace the same and shall collect the costs therefor from Tenant. Tenant agrees to pay for water consumed, as shown on said meter, as and when bills are rendered. If Tenant fails to timely make such payments, Landlord may pay such charges and collect the same from Tenant. Any such costs or expenses incurred, or payments made by Landlord for any of the reasons or purposes hereinabove stated, shall be deemed to be Additional Rent payment by Tenant and collectible by Landlord as such.

16.8. Landlord reserves the right to stop service of the elevator, plumbing, ventilation, air conditioning and electric systems, when Landlord deems necessary or desirable, due to accident, emergency or the need to make repairs, alterations or improvements, until such repairs, alterations or improvements shall have been completed, and Landlord shall further have no responsibility or liability for failure to supply elevator facilities, plumbing, ventilation, air conditioning or electric service when prevented from doing so by Force Majeure or a failure by a third party to deliver gas, oil or another suitable fuel supply, or Landlord's inability by exercise of reasonable diligence to obtain gas, oil or another suitable fuel. Without limiting the foregoing, it is expressly understood and agreed that any covenants on Landlord's part to furnish any service pursuant to any of the terms, covenants, conditions, provisions or agreements of this Lease, or to perform any act or thing for the benefit of Tenant, shall not be deemed breached if Landlord is unable to furnish or perform the same by virtue of Force Majeure.

16.9. Notwithstanding the provisions of Sections 16.2 or 16.8 to the contrary, in the event that Tenant is prevented from using, and does not use, the Premises or any portion thereof, for more than one (1) business day as a result of an interruption of, or failure to provide, any utilities or services as described in Sections 16.2 and 16.4 ("Interruption of Service") caused by the grossly negligent or intentionally wrongful acts or omissions of Landlord or any agent, contractor or employee of Landlord, the Basic Annual Rent and Additional Rent shall be abated proportionately with the degree to which Tenant's use of the Premises is impaired commencing from the day immediately following such one (1) business day period and continuing until the Interruption of Service has been remedied.

17. Alterations.

17.1. Tenant shall make no alterations, additions or improvements in or to the Premises without Landlord's prior written approval, which approval Landlord shall not unreasonably withhold; provided, however, that in the event any proposed alteration, addition or improvement affects (a) any structural portions of the Building, including exterior walls, roof, foundation or core of the Building, (b) the exterior of the Building or (iii) any Building systems, including elevator, plumbing, air conditioning, heating, electrical, security, life safety and power, then Landlord may withhold its approval with respect thereto in its sole and absolute discretion. Tenant shall, in making any such alterations, additions or improvements, use only those architects, contractors, suppliers and mechanics of which Landlord has given prior written approval, which approval shall be in Landlord's sole and absolute discretion. In seeking

Landlord's approval, Tenant shall provide Landlord, at least fourteen (14) days in advance of any proposed construction, with plans, specifications, bid proposals, work contracts, requests for laydown areas and such other information concerning the nature and cost of the alterations as Landlord may reasonably request. Notwithstanding the foregoing, Tenant may, without Landlord's consent but upon prior written notice to Landlord, make non-structural alterations and improvements to the interior of the Premises that do not affect the Building systems, provided that the cost does not exceed Fifty Thousand Dollars ($50,000) per each such alteration or improvement.

17.2. Tenant shall not construct or permit to be constructed partitions or other obstructions that might interfere with free access to mechanical installation or service facilities of the Building, or interfere with the moving of Landlord's equipment to or from the enclosures containing such installations or facilities.

17.3. Tenant shall accomplish any work performed on the Premises or the Building in such a manner as to permit any fire sprinkler system and fire water supply lines to remain fully operable at all times.

17.4. Any work performed on the Premises or the Building by Tenant or Tenant's contractors shall be done at such times and in such manner as Landlord may from time to time reasonably designate. Tenant covenants and agrees that all work done by Tenant or Tenant's contractors shall be performed in full compliance with Applicable Laws. Tenant shall provide Landlord with complete "as-built" drawing print sets and electronic CADD files on disc showing any changes in the Premises.

17.5. Before commencing any work, Tenant shall give Landlord at least fourteen (14) days' prior written notice of the proposed commencement of such work.

17.6. All alterations, permanently attached equipment, fixtures, additions and improvements, subject to Section 17.8, attached to or built into the Premises, made by either of the Parties, including, without limitation, all floor and wall coverings, built-in cabinet work and paneling, sinks and related plumbing fixtures, exterior venting fume hoods and walk-in freezers and refrigerators, ductwork, conduits, electrical panels and circuits, and all items paid for with the Tenant Improvement Allowance, shall, unless, prior to such construction or installation, Landlord elects otherwise at the time Landlord gives its approval of such alterations, additions or improvements, become the property of Landlord upon the expiration or earlier termination of the Term, and shall remain upon and be surrendered with the Premises as a part thereof.

17.7. Tenant shall repair any damage to the Premises caused by Tenant's removal of any property from the Premises. During any such restoration period, Tenant shall pay Rent to Landlord as provided herein as if said space were otherwise occupied by Tenant.

17.8. Tenant shall remove all of its personal property and trade fixtures (excluding any items paid for with the Tenant Improvement Allowance) from the Premises prior to the expiration of this Lease or promptly after the earlier termination of this Lease. If Tenant shall fail to remove any of such personal property or trade fixtures from the Premises prior to termination of this Lease (or, in the event of a termination pursuant to Section 22 or Section 23

hereof, within three (3) months following such termination), then Landlord may, at its option, remove the same in any manner that Landlord shall choose and store said property without liability to Tenant for loss thereof or damage thereto, and Tenant shall pay Landlord, upon demand, any costs and expenses incurred due to such removal and storage or Landlord may, at its sole option and without notice to Tenant, sell such property or any portion thereof at private sale and without legal process for such price as Landlord may obtain and apply the proceeds of such sale against any (a) amounts due by Tenant to Landlord under this Lease and (b) any expenses incident to the removal, storage and sale of said personal property. In the event of a termination of this Lease pursuant to Section 22 or Section 23 hereof, if Tenant has any personal property or trade fixtures (excluding any items paid for with the Tenant Improvement Allowance) in the Premises more than thirty (30) days after such termination, then commencing on the thirty-first (31st) day after such termination, Tenant shall pay a pro rata share of the Basic Annual Rent for that portion of the Premises containing such personal property or trade fixtures, which Basic Annual Rent shall be prorated for any partial months. Notwithstanding any other provision of this Section 17 to the contrary, in no event shall Tenant remove any improvement from the Premises as to which Landlord contributed payment, including, without limitation, the Tenant Improvements made pursuant to the Work Letter, without Landlord's prior written consent, which consent Landlord may withhold in its sole and absolute discretion.

17.9. Tenant shall pay to Landlord One Thousand Five Hundred Dollars ($1,500) plus Landlord's reasonable out-of-pocket expenses to cover Landlord's overhead and expenses for plan review, coordination, scheduling and supervision of all changes installed by Tenant or its contractors or agents, other than the initial Tenant Improvements. For purposes of payment of such sum, Tenant shall submit to Landlord copies of all bills, invoices and statements covering the costs of such charges, accompanied by payment to Landlord of the fee set forth in this Section. Tenant shall reimburse Landlord for any extra expenses incurred by Landlord by reason of faulty work done by Tenant or its contractors, or by reason of delays caused by such work, or by reason of inadequate clean-up.

17.10. Within sixty (60) days after final completion of the Tenant Improvements (or any other alterations, improvement or additions performed by Tenant with respect to the Premises), Tenant shall submit to Landlord documentation showing the amounts expended by Tenant (other than funds that constitute the Tenant Improvement Allowance or Additional TI Allowance) with respect to such Tenant Improvements (or any other alterations, improvement or additions performed by Tenant with respect to the Premises), together with supporting documentation reasonably acceptable to Landlord.

18. Repairs and Maintenance.

18.1. Landlord shall repair and maintain the structural and exterior portions and Common Areas of the Building and the Project, including, without limitation, roofing and covering materials, foundations, exterior walls, plumbing, fire sprinkler systems (if any), heating, ventilating, air conditioning, elevators, and electrical systems installed or furnished by Landlord. Any costs related to the repair or maintenance activities specified in this Section 18.1 shall be included as a part of Operating Expenses, unless such repairs or maintenance is required in whole or in part because of any negligent or wrongful act or omissions of Tenant, its agents, servants, employees or invitees, in which case Tenant shall pay to Landlord the cost of such repairs and maintenance.

18.2. Except for services of Landlord, if any, required by Section 18.1, Tenant shall at Tenant's sole cost and expense keep the Premises and every part thereof in good condition and repair, damage thereto from ordinary wear and tear excepted. Tenant shall, upon the expiration or sooner termination of the Term, surrender the Premises to Landlord in as good of a condition as when received, ordinary wear and tear excepted. Landlord shall have no obligation to alter, remodel, improve, repair, decorate or paint the Premises or any part thereof, other than pursuant to the terms and provisions of Section 4 hereof

18.3. Landlord shall not be liable for any failure to make any repairs or to perform any maintenance that is an obligation of Landlord unless such failure shall persist for an unreasonable time after Tenant provides Landlord with written notice of the need of such repairs or maintenance. Tenant waives its rights under Applicable Laws now or hereafter in effect to make repairs at Landlord's expense.

18.4. Repairs under this Section 18 that are obligations of Landlord are subject to allocation among Tenant and other tenants as Operating Expenses, except as otherwise provided in this Section 18.

18.5. This Section 18 relates to repairs and maintenance arising in the ordinary course of operation of the Building and the Project and any related facilities. In the event of fire, earthquake, flood, vandalism, war or similar cause of damage or destruction, Section 22 shall apply in lieu of this Section 18.

19. Liens.

19.1. Subject to the immediately succeeding sentence, Tenant shall keep the Premises, the Building and the Project free from any liens arising out of work performed, materials furnished or obligations incurred by Tenant. Tenant further covenants and agrees that any mechanic's lien filed against the Premises, the Building or the Project for work claimed to have been done for, or materials claimed to have been furnished to, shall be discharged or bonded by Tenant within twenty (20) days after the filing thereof, at Tenant's sole cost and expense.

19.2. Should Tenant fail to discharge or bond against any lien of the nature described in Section 19.1, Landlord may, at Landlord's election, pay such claim or post a bond or otherwise provide security to eliminate the lien as a claim against title, and Tenant shall immediately reimburse Landlord for the costs thereof as Additional Rent.

19.3. In the event that Tenant leases or finances the acquisition of office equipment, furnishings or other personal property of a removable nature utilized by Tenant in the operation of Tenant's business, Tenant warrants that any Uniform Commercial Code financing statement executed by Tenant shall, upon its face or by exhibit thereto, indicate that such financing statement is applicable only to removable personal property of Tenant located within the Premises. In no event shall the address of the Building be furnished on a financing statement without qualifying language as to applicability of the lien only to removable personal property located in an identified suite leased by Tenant. Should any holder of a financing statement

executed by Tenant record or place of record a financing statement that appears to constitute a lien against any interest of Landlord or against equipment that may be located other than within an identified suite leased by Tenant, Tenant shall, within ten (10) days after filing such financing statement, cause (a) a copy of the lender security agreement or other documents to which the financing statement pertains to be furnished to Landlord to facilitate Landlord's ability to demonstrate that the lien of such financing statement is not applicable to Landlord's interest and (b) Tenant's lender to amend such financing statement and any other documents of record to clarify that any liens imposed thereby are not applicable to any interest of Landlord in the Premises, the Building or the Project.

20. Indemnification and Exculpation.

20.1. Tenant agrees to indemnify, defend and save Landlord harmless from and against any and all demands, claims, liabilities, losses, costs, expenses, actions, causes of action, damages or judgments, and all reasonable expenses (including, without limitation, reasonable attorneys' fees, charges and disbursements) incurred in investigating or resisting the same (collectively, "Claims") arising from injury or death to any person or injury to any property occurring within or about the Premises, the Building or the Property arising directly or indirectly out of Tenant's or Tenant's employees', agents' or guests' use or occupancy of the Premises or a breach or default by Tenant in the performance of any of its obligations hereunder, except to the extent caused by the willful misconduct or gross negligence of Landlord or any employee, agent or contractor of Landlord.

20.2. Notwithstanding any provision of Section 20.1 to the contrary, Landlord shall not be liable to Tenant for, and Tenant assumes all risk of, dan1age to personal property or scientific research, including, without limitation, loss of records kept by Tenant within the Premises and damage or losses caused by fire, electrical malfunction, gas explosion or water damage of any type (including, without limitation, broken water lines, malfunctioning fire sprinkler systems, roof leaks or stoppages of lines), unless any such loss is due to Landlord's willful disregard of written notice by Tenant of need for a repair that Landlord is responsible to make for an unreasonable period of time. Tenant further waives any claim for injury to Tenant's business or loss of income relating to any such damage or destruction of personal property as described in this Section 20.2.

20.3. Landlord shall not be liable for any damages arising from any act, omission or neglect of any other tenant in the Building or the Project, or of any other third party, except to the extent caused by the willful misconduct or gross negligence of Landlord or any employee, agent or contractor of Landlord.

20.4. Tenant acknowledges that security devices and services, if any, while intended to deter crime, may not in given instances prevent theft or other criminal acts. Landlord shall not be liable for injuries or losses caused by criminal acts of third parties, and Tenant assumes the risk that any security device or service may malfunction or otherwise be circumvented by a criminal. If Tenant desires protection against such criminal acts, then Tenant shall, at Tenant's sole cost and expense, obtain appropriate insurance coverage.

20.5. The provisions of this Section 20 shall survive the expiration or earlier termination of this Lease.

21. Insurance; Waiver of Subrogation.

21.1. Landlord shall maintain insurance for the Building and the Project in amounts equal to full replacement cost (exclusive of the costs of excavation, foundations and footings, and without reference to depreciation taken by Landlord upon its books or tax returns) or such lesser coverage as Landlord may elect, provided that such coverage shall not be less than ninety percent (90%) of such full replacement cost or the amount of such insurance Landlord's lender, mortgagee or beneficiary (each, a "Lender"), if any, requires Landlord to maintain, providing protection against any peril generally included within the classification "Fire and Extended Coverage," together with insurance against sprinkler damage (if applicable), vandalism and malicious mischief. Landlord, subject to availability thereof, shall further insure, if Landlord deems it appropriate, coverage against flood, environmental hazard, earthquake, loss or failure of building equipment, rental loss during the period of repairs or rebuilding, workmen's compensation insurance and fidelity bonds for employees employed to perform services. Notwithstanding the foregoing, Landlord may, but shall not be deemed required to, provide insurance for any improvements installed by Tenant or that are in addition to the standard improvements customarily furnished by Landlord, without regard to whether or not such are made a part of or are affixed to the Building. Any costs incurred by Landlord pursuant to this Section 21.1 shall constitute a portion of Operating Expenses.

21.2. In addition, Landlord shall carry commercial general liability insurance with a single limit of not less than One Million Dollars ($1,000,000) for death or bodily injury, or property damage with respect to the Project. Any costs incurred by Landlord pursuant to this Section 21.2 shall constitute a portion of Operating Expenses.

21.3. Tenant shall, at its own cost and expense, procure and maintain in effect, begi1ming on the Term Commencement Date or the date of occupancy, whichever occurs first, and continuing throughout the Term (and occupancy by Tenant, if any, after termination of this Lease) commercial general liability insurance with limits of not less than Two Million Dollars ($2,000,000) per occurrence for death or bodily injury and not less than One Million Dollars ($1,000,000) for property dan1age with respect to the Premises.

21.4. The insurance required to be purchased and maintained by Tenant pursuant to this Lease shall name Landlord, BioMed Realty, L.P., BioMed Realty Trust, Inc., and their respective officers, employees, agents, general partners, members and Lenders ("Landlord Parties") as additional insureds. Said insurance shall be with companies having a rating of not less than policyholder rating of A- and financial category rating of at least Class VIII in "Best's Insurance Guide." Tenant shall obtain for Landlord from the insurance companies or cause the insurance companies to furnish certificates of coverage to Landlord. No such policy shall be subject to cancellation or reduction or diminishment except after thirty (30) days' prior written notice to Landlord from the insurer. All such policies shall be written as primary policies, not contributing with and not in excess of the coverage that Landlord may carry. Tenant's policy may be a "blanket policy" that specifically provides that the amount of insurance shall not be prejudiced by other losses covered by the policy. Tenant shall, at least twenty (20) days prior to

the expiration of such policies, furnish Landlord with renewals or binders. Tenant agrees that if Tenant does not take out and maintain such insurance, Landlord may (but shall not be required to) procure said insurance on Tenant's behalf and at its cost to be paid by Tenant as Additional Rent.

21.5. Tenant assumes the risk of damage to any fixtures, goods, inventory, merchandise, equipment and leasehold improvements, and Landlord shall not be liable for injury to Tenant's business or any loss of income therefrom, relative to such damage, all as more particularly set forth within this Lease. Tenant shall, at Tenant's sole cost and expense, carry (a) insurance on Tenant's leasehold improvements providing protection against all risks of physical damage or loss and (b) such insurance as Tenant desires for Tenant's protection with respect to personal property of Tenant or business interruption.

21.6. In each instance where insurance is to name Landlord Parties as additional insureds, Tenant shall, upon Landlord's written request, also designate and furnish certificates evidencing such Landlord Parties as additional insureds to (a) any Lender of Landlord holding a security interest in the Building or the Project, (b) the landlord under any lease whereunder Landlord is a tenant of the real property upon which the Building is located if the interest of Landlord is or shall become that of a tenant under a ground lease rather than that of a fee owner, and (c) any management company retained by Landlord to manage the Project.

21.7. Landlord and Tenant each hereby waive any and all rights of recovery against the other or against the officers, directors, employees, agents and representatives of the other on account of loss or damage occasioned by such waiving party or its property or the property of others under such waiving party's control, in each case to the extent that such loss or damage is insured against under any fire and extended coverage insurance policy that either Landlord or Tenant may have in force at the time of such loss or damage. Such waivers shall continue so long as their respective insurers so permit. Any termination of such a waiver shall be by written notice to the other party, containing a description of the circumstances hereinafter set forth in this Section 21.7. Landlord and Tenant, upon obtaining the policies of insurance required or permitted under this Lease, shall give notice to the insurance carrier or carriers that the foregoing mutual waiver of subrogation is contained in this Lease. If such policies shall not be obtainable with such waiver or shall be so obtainable only at a premium over that chargeable without such waiver, then the party seeking such policy shall notify the other of such conditions, and the party so notified shall have ten (10) days thereafter to either (a) procure such insurance with companies reasonably satisfactory to the other party or (b) agree to pay such additional premium (in Tenant's case, in the proportion that the area of the Premises bears to the insured area). If the parties do not accomplish either (a) or (b), then this Section 21.7 shall have no effect during such time as such policies shall not be obtainable or the party in whose favor a waiver of subrogation is desired refuses to pay the additional premium. If such policies shall at any time be unobtainable, but shall be subsequently obtainable, then neither party shall be subsequently liable for a failure to obtain such insurance until a reasonable time after notification thereof by the other party. If the release of either Landlord or Tenant, as set forth in the first sentence of this Section 21.7, shall contravene Applicable Laws, then the liability of the party in question shall be deemed not released but shall be secondary to the other party's insurer.

21.8. Landlord may require insurance policy limits required under this Lease to be raised to conform with requirements of Landlord's Lender or to bring coverage limits to levels then being required of new tenants within the Project.

22. Damage or Destruction.

22.1. In the event of a partial destruction of the Building or the Project by fire or other perils covered by extended coverage insurance not exceeding twenty-five percent (25%) of the full insurable value thereof, and provided that (a) the damage thereto is such that the Building or the Project may be repaired, reconstructed or restored within a period of eight (8) months from the date of the happening of such casualty and (b) Landlord shall receive insurance proceeds sufficient to cover the cost of such repairs (except for any deductible amount provided by Landlord's policy, which deductible amount, if paid by Landlord, shall constitute an Operating Expense), Landlord shall commence and proceed diligently with the work of repair, reconstruction and restoration of the Building or the Project, as applicable, and this Lease shall continue in full force and effect. Notwithstanding the foregoing, Landlord may not terminate this Lease pursuant to clause (b) of this Section 22.1 unless the cost of such repairs in excess of any deductible amount and any available insurance proceeds to restore the Building and other improvements on the Property exceeds Two Hundred Fifty Thousand Dollars ($250,000).

22.2. In the event of any damage to or destruction of the Building or the Project other than as described in Section 22.1, Landlord may elect to repair, reconstruct and restore the Building or the Project, as applicable, in which case this Lease shall continue in full force and effect. If Landlord elects not to repair the Building or the Project, as applicable, then this Lease shall terminate as of the date of such damage or destruction.

22.3. Within sixty (60) days following the date of damage or destruction, Landlord shall give written notice to Tenant either (a) of its election not to repair, reconstruct or restore the Building or the Project, as applicable, or (b) of the amount of time reasonably anticipated to be required to complete the repair, reconstruction and/or restoration of the Premises and the parking facilities of the Project.

22.4. Upon any termination of this Lease under any of the provisions of this Section 22, the parties shall be released thereby without further obligation to the other from the date possession of the Premises is surrendered to the Landlord, except with regard to (a) items occurring prior to the damage or destruction and (b) provisions of this Lease that, by their express terms, survive the expiration or earlier termination hereof.

22.5. In the event of repair, reconstruction and restoration as provided in this Section 22, all Rent to be paid by Tenant under this Lease shall be abated proportionately based on the extent to which Tenant's use of the Premises is impaired during the period of such repair, reconstruction or restoration, unless Landlord provides Tenant with other space during the period of repair that, in Tenant's reasonable opinion, is suitable for the temporary conduct of Tenant's business.

22.6. Notwithstanding anything to the contrary contained in this Section 22, if the time required to complete the repair, reconstruction and/or restoration of the Premises and the parking

facilities of the Project exceeds eight (8) months from the date of damage or destruction, then Tenant may terminate this Lease by written notice of termination given no later than sixty (60) days after Landlord notifies Tenant as to how much time will be required to complete the repair, reconstruction and/or restoration of the Premises and the parking facilities of the Project.

22.7. If Landlord is obligated to or elects to repair, reconstruct or restore as herein provided, then Landlord shall be obligated to make such repair, reconstruction or restoration only with regard to those portions of the Premises, the Building or the Project that were originally provided at Landlord's expense. The repair, reconstruction or restoration of improvements not originally provided by Landlord or at Landlord's expense shall be the obligation of Tenant. In the event Tenant has elected to upgrade certain improvements from the Building Standard, Landlord shall, upon the need for replacement due to an insured loss, provide only the Building Standard, unless Tenant again elects to upgrade such improvements and pay any incremental costs related thereto, except to the extent that excess insurance proceeds, if received, are adequate to provide such upgrades, in addition to providing for basic repair, reconstruction and restoration of the Premises, the Building and the Project.

22.8. Notwithstanding anything to the contrary contained in this Section 22, Landlord shall not have any obligation whatsoever to repair, reconstruct or restore the Premises if the damage resulting from any casualty covered under this Section 22 occurs during the last twelve (12) months of the Term or any extension hereof.

23. Eminent Domain.

23.1. In the event the whole of the Premises, or such part thereof as shall substantially interfere with the Tenant's use and occupancy thereof, shall be taken for any public or quasi-public purpose by any lawful power or authority by exercise of the right of appropriation, condemnation or eminent domain, or sold to prevent such taking, Tenant or Landlord may terminate this Lease effective as of the date possession is required to be surrendered to said authority.

23.2. In the event of a partial taking of the Building or the Project, or of drives, walkways or parking areas serving the Building or the Project for any public or quasi-public purpose by any lawful power or authority by exercise of right of appropriation, condemnation, or eminent domain, or sold to prevent such taking, then, without regard to whether any portion of the Premises occupied by Tenant was so taken, (a) Landlord may elect to terminate this Lease as of such taking if such taking is, in Landlord's sole opinion, of a material nature such as to make it uneconomical to continue use of the unappropriated portion for purposes of renting office or laboratory space and (b) Tenant may elect to terminate this Lease as of such taking if such taking has a material adverse effect on Tenant's use and enjoyment of or access to the Premises or on Tenant's use and enjoyment of the parking spaces allocated to Tenant under Section 15.2 above; provided that Landlord shall have thirty (30) days after receipt of written notice from Tenant stating Tenant's election to termination this Lease to remedy any such material adverse effect; provided, further, that Landlord shall not be deemed to have remedied such material adverse effect by providing parking other than on the Property or adjoining property owned by Landlord or its affiliates.

23.3. Tenant shall be entitled to any award that is specifically awarded as compensation for (a) the taking of Tenant's personal property that was installed at Tenant's expense and (b) the costs of Tenant moving to a new location. Except as set forth in the previous sentence, any award for such taking shall be the property of Landlord.

23.4. If, upon any taking of the nature described in this Section 23, this Lease continues in effect, then Landlord shall promptly proceed to restore the Premises, the Building and the Project, as applicable, to substantially their same condition prior to such partial taking. To the extent such restoration is feasible, as determined by Landlord in its sole and absolute discretion, the Rent shall be decreased by a number, the numerator of which is the rental value of the Premises prior to such taking, and the denominator of which is the value of the Premises after such taking.

24. Defaults and Remedies.

24.1. Late payment by Tenant to Landlord of Rent and other sums due shall cause Landlord to incur costs not contemplated by this Lease, the exact amount of which shall be extremely difficult and impracticable to ascertain. Such costs include, but are not limited to, processing and accounting charges and late charges that may be imposed on Landlord by the terms of any mortgage or trust deed covering the Premises. Therefore, if any installment of Rent due from Tenant is not received by Landlord within five (5) days after the date such payment is due, Tenant shall pay to Landlord an additional sum of six percent (6%) of the overdue Rent as a late charge. The parties agree that this late charge represents a fair and reasonable estimate of the costs that Landlord shall incur by reason of late payment by Tenant. In addition to the late charge, Rent not paid when due shall bear interest from the fifth (5th) day after the date due until paid at the lesser of (a) twelve percent (12%) per annum or (b) the maximum rate permitted by Applicable Laws. Notwithstanding the foregoing, the first occurrence of any delinquency in Tenant's payment of Rent in any twelve (12) month period shall give rise to a late charge and interest only if Tenant fails to cure such delinquency within three (3) business days after written notice from Landlord thereof.

24.2. No payment by Tenant or receipt by Landlord of a lesser amount than the Rent payment herein stipulated shall be deemed to be other than on account of the Rent, nor shall any endorsement or statement on any check or any letter accompanying any check or payment as Rent be deemed an accord and satisfaction, and Landlord may accept such check or payment without prejudice to Landlord's right to recover the balance of such Rent or pursue any other remedy provided in this Lease or in equity or at law. If a dispute shall arise as to any amount or sum of money to be paid by Tenant to Landlord hereunder, Tenant shall have the right to make payment "under protest," such payment shall not be regarded as a voluntary payment, and there shall survive the right on the part of Tenant to institute suit for recovery of the payment paid under protest.

24.3. If Tenant fails to pay any sum of money (other than Basic Annual Rent or Rental Adjustments) required to be paid by it hereunder, or shall fail to perform any other act on its part to be performed hereunder, Landlord may, without waiving or releasing Tenant from any obligations of Tenant, but shall not be obligated to, make such payment or perform such act; provided that such failure by Tenant continues for three (3) business days (with respect to a

failure to pay money) or ten (10) business days (with respect to a failure to perform any other obligation) in each case after Landlord delivers notice to Tenant demanding performance by Tenant; or that such failure by Tenant unreasonably interfered with the use of the Building by any other tenant or with the efficient operation of the Building, or resulted or could have resulted in a violation of Applicable Laws or the cancellation of an insurance policy maintained by Landlord. Tenant shall pay to Landlord as Additional Rent all sums so paid or incurred by Landlord, together with interest thereon, from the date such sums were paid or incurred, at the annual rate equal to twelve percent (12%) per annum or highest rate permitted by Applicable Laws, whichever is less.

24.4. The occurrence of any one or more of the following events shall constitute a "Default" hereunder by Tenant:

(a) The abandonment or vacation of the Premises by Tenant;

(b) The failure by Tenant to make any payment of Rent, as and when due, where such failure shall continue for a period of three (3) business days after written notice thereof from Landlord to Tenant;

(c) The failure by Tenant to observe or perform any obligation or covenant contained herein (other than described in Subsections 24.4(a) and 24.4(b)) to be performed by Tenant, where such failure shall continue for a period of ten (10) business days after written notice thereof from Landlord to Tenant; provided that, if the nature of Tenant's default is such that it reasonably requires more than ten (10) business days to cure, Tenant shall not be deemed to be in default if Tenant shall commence such cure within said ten (10) business day period and thereafter diligently prosecute the same to completion; and provided, further, that such cure is completed no later than ninety (90) days from the date of Tenant's receipt of written notice from Landlord;

(d) Tenant makes an assignment for the benefit of creditors;

(e) A receiver, trustee or custodian is appointed to or does take title, possession or control of all or substantially all of Tenant's assets;

(f) Tenant files a voluntary petition under the United States Bankruptcy Code or any successor statute (the "Code");

(g) Any involuntary petition if filed against Tenant under any chapter of the Code and is not dismissed within one hundred twenty (120) days;

(h) Failure to deliver an estoppel certificate in accordance with Section 29, which failure is not remedied within five (5) business days after Landlord gives Tenant a second written request to deliver such estoppel certificate; or

(i) Tenant's interest in this Lease is attached, executed upon or otherwise judicially seized and such action is not released within one hundred twenty (120) days of the action.

Notices given under this Section 24.4 shall specify the alleged default and shall demand that Tenant perform the provisions of this Lease or pay the Rent that is in arrears, as the case may be, within the applicable period of time, or quit the Premises. No such notice shall be deemed a forfeiture or a termination of this Lease unless Landlord elects otherwise in such notice.

24.5. In the event of a Default by Tenant, and at any time thereafter, with or without notice or demand and without limiting Landlord in the exercise of any right or remedy that Landlord may have, Landlord shall be entitled to terminate Tenant's right to possession of the Premises by any lawful means, in which case this Lease shall terminate and Tenant shall immediately surrender possession of the Premises to Landlord. In such event, Landlord shall have the immediate right to re-enter and remove all persons and property, and such property may be removed and stored in a public warehouse or elsewhere at the cost and for the account of Tenant, all without service of notice or resort to legal process and without being deemed guilty of trespass or becoming liable for any loss or damage that may be occasioned thereby. In the event that Landlord shall elect to so terminate this Lease, then Landlord shall be entitled to recover from Tenant all damages incurred by Landlord by reason of Tenant's default, including, without limitation:

(a) The worth at the time of award of any unpaid Rent that had accrued at the time of such termination; plus

(b) The worth at the time of award of the amount by which the unpaid Rent that would have accrued during the period commencing with termination of the Lease and ending at the time of award exceeds that portion of the loss of Landlord's rental income from the Premises that Tenant proves to Landlord's reasonable satisfaction could have been reasonably avoided; plus

(c) The worth at the time of award of the amount by which the unpaid Rent for the balance of the Term after the time of award exceeds that portion of the loss of Landlord's rental income from the Premises that Tenant proves to Landlord's reasonable satisfaction could have been reasonably avoided; plus

(d) Any other amount necessary to compensate Landlord for all the detriment proximately caused by Tenant's failure to perform its obligations under this Lease or that in the ordinary course of things would be likely to result therefrom, including, without limitation, the cost of restoring the Premises to the condition required under the terms of this Lease; plus

(e) At Landlord's election, such other amounts in addition to or in lieu of the foregoing as may be permitted from time to time by Applicable Laws.

As used in Subsections 24.5(a) and 24.5(b), "worth at the time of award" shall be computed by allowing interest at the rate specified in Section 24.1. As used in Subsection 24.5(c) above, the "worth at the time of the award" shall be computed by taking the present value of such amount, using the discount rate of the Federal Reserve Bank of San Francisco at the time of the award plus six (6) percentage points.

24.6. If Landlord does not elect to terminate this Lease as provided in Section 24.5, then Landlord may, from time to time, recover all Rent as it becomes due under this Lease. At any time thereafter, Landlord may elect to terminate this Lease and to recover damages to which Landlord is entitled.

24.7. In the event Landlord elects to terminate this Lease and relet the Premises, Landlord may execute any new lease in its own name. Tenant hereunder shall have no right or authority whatsoever to collect any Rent from such tenant. The proceeds of any such reletting shall be applied as follows:

(a) First, to the payment of any indebtedness other than Rent due hereunder from Tenant to Landlord, including, without limitation, storage charges or brokerage commissions owing from Tenant to Landlord as the result of such reletting;

(b) Second, to the payment of the costs and expenses of reletting the Premises, including (a) alterations and repairs that Landlord deems reasonably necessary and advisable and (b) reasonable attorneys' fees, charges and disbursements incurred by Landlord in connection with the retaking of the Premises and such reletting;

(c) Third, to the payment of Rent and other charges due and unpaid hereunder; and

(d) Fourth, to the payment of future Rent and other damages payable by Tenant under this Lease.

24.8. All of Landlord's rights, options and remedies hereunder shall be construed and held to be nonexclusive and cumulative. Landlord shall have the right to pursue any one or all of such remedies, or any other remedy or relief that may be provided by Applicable Laws, whether or not stated in this Lease. No waiver of any default of Tenant hereunder shall be implied from any acceptance by Landlord of any Rent or other payments due hereunder or any omission by Landlord to take any action on account of such default if such default persists or is repeated, and no express waiver shall affect defaults other than as specified in said waiver.

24.9. Landlord's termination of (a) this Lease or (b) Tenant's right to possession of the Premises shall not relieve Tenant of any liability to Landlord that has previously accrued or that shall arise based upon events that occurred prior to the later to occur of (i) the date of Lease termination or (ii) the date Tenant surrenders possession of the Premises.

24.10. To the extent permitted by Applicable Laws, Tenant waives any and all rights of redemption granted by or under any present or future Applicable Laws if Tenant is evicted or dispossessed for any cause, or if Landlord obtains possession of the Premises due to Tenant's default hereunder or otherwise.

24.11. Landlord shall not be in default under this Lease unless Landlord fails to perform obligations required of Landlord within a reasonable time, but in no event shall such failure to continue for more than thirty (30) days after written notice from Tenant specifying the nature of Landlord's failure; provided, however, that if the nature of Landlord's obligation is such that more than thirty (30) days are required for its performance, then Landlord shall not be in default if Landlord commences performance within such thirty (30) day period and thereafter diligently prosecutes the same to completion.

24.12. In the event of any default by Landlord, Tenant shall give notice by registered or certified mail or by a reputable overnight courier (e.g., FedEx) to any (a) beneficiary of a deed of trust or (b) mortgagee under a mortgage covering the Premises, the Building or the Project and to any landlord of any lease of land upon or within which the Premises, the Building or the Project is located, and shall offer such beneficiary, mortgagee or landlord a reasonable opportunity to cure the default, including time to obtain possession of the Building by power of sale or a judicial action if such should prove necessary to effect a cure; provided that Landlord shall furnish to Tenant in writing, upon written request by Tenant, the names and addresses of all such persons who are to receive such notices.

25. Assignment or Subletting.

25.1. Except as hereinafter provided, Tenant shall not, either voluntarily or by operation of Applicable Laws, directly or indirectly sell, hypothecate, assign, pledge, encumber or otherwise transfer this Lease, or sublet the Premises or any part hereof (each, a "Transfer"), without Landlord's prior written consent, which consent Landlord may not unreasonably withhold; provided, however, that Tenant shall have the right to assign all or any portion of its interest under this Lease or sublet all or any portion of the Premises without Landlord's consent to any parent, subsidiary or affiliate of Tenant; or any party that results from a merger or consolidation of Tenant; or any party that acquires all or substantially all of the assets or stock of Tenant (an "Allowable Transfer"). Any Transfer other than an Allowable Transfer shall be referred to herein as a "Subject Transfer"). Notwithstanding the foregoing, in no event shall Tenant be released from any of its obligations under this Lease.

25.2. In the event Tenant desires to effect a Transfer, then, at least twenty (20) days with respect to a sublease and at least thirty (30) days with respect to any other Transfer, but not more than ninety (90) days in any event, prior to the date when Tenant desires the Transfer to be effective (the "Assignment Date"), Tenant shall provide written notice to Landlord (the "Assignment Notice") containing information (including references) concerning the character of the proposed transferee, assignee or sublessee; the Assignment Date; any ownership or commercial relationship between Tenant and the proposed transferee, assignee or sublessee; and the consideration and all other material terms and conditions of the proposed Transfer, all in such detail as Landlord shall reasonably require. Tenant shall reimburse Landlord for all reasonable attorneys' fees and other reasonable out-of-pocket costs incurred by Landlord in reviewing Tenant's request for such Transfer.

25.3. Landlord, in determining whether consent should be given to a proposed Subject Transfer, may give consideration to the financial strength of such transferee, assignee or sublessee (notwithstanding Tenant remaining liable for Tenant's performance), and any change in use that such transferee, assignee or sublessee proposes to make in the use of the Premises. In no event shall Landlord be deemed to be unreasonable for declining to consent to a Transfer to a transferee, assignee or sublessee of poor reputation, lacking financial qualifications, seeking a change in the Permitted Use, or jeopardizing directly or indirectly the status of Landlord or any of Landlord's affiliates as a Real Estate Investment Trust under the Code; provided that (a)

Landlord agrees to reasonably evaluate any proposed transferee's, assignee's or sublessee's financial qualifications and (b) Landlord may only consider such financial qualifications in the event that, were the transfer, assignment or sublease to occur, Tenant would no longer occupy any portion of the Premises.

25.4. As conditions precedent to Landlord's consent to a Subject Transfer, Landlord may require any or all of the following:

(a) Tenant shall remain fully liable under this Lease during the unexpired Term;

(b) Tenant shall provide Landlord with evidence reasonably satisfactory to Landlord that the value of Landlord's interest under this Lease shall not be diminished or reduced by the proposed Subject Transfer. Such evidence shall include, without limitation, evidence respecting the relevant business experience and financial responsibility and status of the proposed transferee, assignee or sublessee;

(c) Tenant shall reimburse Landlord for Landlord's actual costs and expenses, including, without limitation, reasonable attorneys' fees, charges and disbursements incurred in connection with the review, processing and documentation of such request;

(d) If a Transfer of the Premises provides for the receipt by, on behalf of or on account of Tenant of any consideration of any kind whatsoever (including, without limitation, a premium rental for a sublease or lump sum payment for an assignment, but excluding Tenant's reasonable costs in marketing and subleasing the Premises) in excess of the rental and other charges due to Landlord under this Lease, Tenant shall pay twenty-five percent (25%) of all of such excess to Landlord, prior to deductions for any transaction costs incurred by Tenant, including marketing expenses, tenant improvement allowances, alterations, cash concessions, brokerage commissions, attorneys' fees and free rent. If said consideration consists of cash paid to Tenant, payment to Landlord shall be made upon receipt by Tenant of such cash payment;

(e) The proposed transferee, assignee or sublessee shall agree that, in the event Landlord gives such proposed transferee, assignee or sublessee notice that Tenant is in Default under this Lease, such proposed transferee, assignee or sublessee shall thereafter make all payments otherwise due Tenant directly to Landlord, which payments shall be received by Landlord without any liability being incurred by Landlord, except to credit such payment against those due by Tenant under this Lease, and any such proposed transferee, assignee or sublessee shall agree to attorn to Landlord or its successors and assigns should this Lease be terminated for any reason; provided, however, that in no event shall Landlord or its Lenders, successors or assigns be obligated to accept such attornment;

(f) Any consent to such Transfer shall be effected on Landlord's forms;

(g) There shall exist no uncured Default or Imminent Default hereunder of which Tenant has been given notice by Landlord.

(h) Such proposed transferee, assignee or sublessee's use of the Premises shall not require any change to the Permitted Use;

(i) Landlord shall not be bound by any provision of any agreement pertaining to the Transfer, except for Landlord's written consent to the same;

(j) Tenant shall deliver to Landlord one executed copy of any and all written instruments evidencing or relating to the Transfer; and

(k) A list of Hazardous Materials (as defined in Section 39.7 below), certified by the proposed transferee, assignee or sublessee to be true and correct, that the proposed transferee, assignee or sublessee intends to use or store in the Premises. Additionally, Tenant shall deliver to Landlord, on or before the date any proposed transferee, assignee or sublessee takes occupancy of the Premises, all of the items relating to Hazardous Materials of such proposed transferee, assignee or sublessee as described in Section 39.2.

25.5. Any Transfer that is not in compliance with the provisions of this Section 25 shall be void.

25.6. The consent by Landlord to a Transfer shall not relieve Tenant or proposed transferee, assignee or sublessee from obtaining Landlord's consent to any further Subject Transfer, nor shall it release Tenant or any proposed transferee, assignee or sublessee of Tenant from full and primary liability under this Lease.

25.7. Notwithstanding any Transfer, Tenant shall remain fully and primarily liable for the payment of all Rent and other sums due or to become due hereunder, and for the full performance of all other terms, conditions and covenants to be kept and performed by Tenant. The acceptance of Rent or any other sum due hereunder, or the acceptance of performance of any other term, covenant or condition thereof, from any person or entity other than Tenant shall not be deemed a waiver of any of the provisions of this Lease or a consent to any Transfer.

25.8. [Intentionally omitted]

25.9. If Tenant sublets the Premises or any potion thereof, Tenant hereby immediately and irrevocably assigns to Landlord, as security for Tenant's obligations under this Lease, all rent from any such subletting, and appoints Landlord as assignee and attorney-in-fact for Tenant, and Landlord (or a receiver for Tenant appointed on Landlord's application) may collect such rent and apply it toward Tenant's obligations under this Lease; provided that, until the occurrence of a Default by Tenant, Tenant shall have the right to collect such rent.

26. Attorneys' Fees. If either party commences an action against the other party arising out of or in connection with this Lease, then the prevailing party shall be entitled to have and recover from the non-prevailing party reasonable attorneys' fees, charges and disbursements and costs of suit.

27. Bankruptcy. In the event a debtor, trustee or debtor in possession under the Code, or another person with similar rights, duties and powers under any other Applicable Laws, proposes to cure any default under this Lease or to assume or assign this Lease and is obliged to provide adequate assurance to Landlord that (a) a default shall be cured, (b) Landlord shall be compensated for its damages arising from any breach of this Lease and (c) future performance of Tenant's obligations under this Lease shall occur, then such adequate assurances shall include any or all of the following, as designated by Landlord in its sole and absolute discretion:

27.1. Those acts specified in the Code or other Applicable Laws as included within the meaning of adequate assurance," even if this Lease does not concern a shopping center or other facility described in such Applicable Laws;

27.2. A prompt cash payment to compensate Landlord for any monetary defaults or actual damages arising directly from a breach of this Lease;

27.3. A cash deposit in an amount at least equal to the then-current amount of the Security Deposit; or

27.4. The assumption or assignment of all of Tenant's interest and obligations under this Lease.

28. Definition of Landlord. With regard to obligations imposed upon Landlord pursuant to this Lease, the term "Landlord," as used in this Lease, shall refer only to Landlord or Landlord's then-current successor-in-interest. In the event of any transfer, assignment or conveyance of Landlord's interest in this Lease or in Landlord's fee title to or leasehold interest in the Property, as applicable, Landlord herein named (and in case of any subsequent transfers or conveyances, the subsequent Landlord) shall be automatically freed and relieved, from and after the date of such transfer, assignment or conveyance, from all liability for the performance of any covenants or obligations contained in this Lease thereafter to be performed by Landlord and, without further agreement, the transferee, assignee or conveyee of Landlord's in this Lease or in Landlord's fee title to or leasehold interest in the Property, as applicable, shall be deemed to have assumed and agreed to observe and perform any and all covenants and obligations of Landlord hereunder during the tenure of its interest in the Lease or the Property, in each case to the extent that the transferee, assignee or conveyee assumes in writing such covenants and obligations. Landlord or any subsequent Landlord may transfer its interest in the Premises or this Lease without Tenant's consent.

29. Estoppel Certificate. Tenant shall, within ten (10) business days of receipt of written notice from Landlord, execute, acknowledge and deliver a statement in writing substantially in the form attached to this Lease as Exhibit E, or on any other form reasonably requested by a proposed Lender or purchaser, (a) certifying that this Lease is unmodified and in full force and effect (or, if modified, stating the nature of such modification and certifying that this Lease as so modified is in full force and effect) and the dates to which rental and other charges are paid in advance, if any, (b) acknowledging that there are not, to Tenant's knowledge, any uncured defaults on the part of Landlord hereunder, or specifying such defaults if any are claimed, and (c) setting forth such further information with respect to this Lease or the Premises as may be requested thereon. Any such statement may be relied upon by any prospective purchaser or encumbrancer of all or any portion of the real property of which the Premises are a part. Tenant's failure to deliver such statement within such the prescribed time shall be binding upon Tenant that the Lease is in full force and effect and without modification except as may be represented by Landlord in any certificate prepared by Landlord and delivered to Tenant for execution.

30. Joint and Several Obligations. If more than one person or entity executes this Lease as Tenant, then:

30.1. Each of them is jointly and severally liable for the keeping, observing and performing of all of the terms, covenants, conditions, provisions and agreements of this Lease to be kept, observed or performed by Tenant; and

30.2. The term "Tenant" as used in this Lease shall mean and include each of them, jointly and severally. The act of, notice from, notice to, refund to, or signature of any one or more of them with respect to the tenancy under this Lease, including, without limitation, any renewal, extension, expiration, termination or modification of this Lease, shall be binding upon each and all of the persons executing this Lease as Tenant with the same force and effect as if each and all of them had so acted, so given or received such notice or refund, or so signed.

31. Limitation of Landlord's Liability.

31.1. If Landlord is in default under this Lease and, as a consequence, Tenant recovers a monetary judgment against Landlord, the judgment shall be satisfied only out of (a) the proceeds of sale received on execution of the judgment and levy against the right, title and interest of Landlord in the Building and the Project of which the Premises are a part, (b) rent or other income from such real property receivable by Landlord or (c) the consideration received by Landlord from the sale, financing, refinancing or other disposition of all or any part of Landlord's right, title or interest in the Building or the Project of which the Premises are a part.

31.2. Landlord shall not be personally liable for any deficiency under this Lease. If Landlord is a partnership or joint venture, then the partners of such partnership shall not be personally liable for Landlord's obligations under this Lease, and no partner of Landlord shall be sued or named as a party in any suit or action, and service of process shall not be made against any partner of Landlord except as may be necessary to secure jurisdiction of the partnership or joint venture. If Landlord is a corporation, then the shareholders, directors, officers, employees and agents of such corporation shall not be personally liable for Landlord's obligations under this Lease, and no shareholder, director, officer, employee or agent of Landlord shall be sued or named as a party in any suit or action, and service of process shall not be made against any shareholder, director, officer, employee or agent of Landlord. If Landlord is a limited liability company, then the members of such limited liability company shall not be personally liable for Landlord's obligations under this Lease, and no member of Landlord shall be sued or named as a party in any suit or action, and service of process shall not be made against any member of Landlord except as may be necessary to secure jurisdiction of the limited liability company. No partner, shareholder, director, employee, member or agent of Landlord shall be required to answer or otherwise plead to any service of process, and no judgment shall be taken or writ of execution levied against any partner, shareholder, director, employee or agent of Landlord.

31.3. Each of the covenants and agreements of this Section 31 shall be applicable to any covenant or agreement either expressly contained in this Lease or imposed by Applicable Laws and shall survive the expiration or earlier termination of this Lease.

32. Project Control by Landlord.

32.1. Landlord reserves full control over the Building and the Project to the extent not inconsistent with Tenant's enjoyment of the Premises as provided by this Lease. This reservation includes, without limitation, Landlord's right to subdivide the Project, convert the Building and other buildings within the Project to condominium units, grant easements and licenses to third parties, and maintain or establish ownership of the Building separate from fee title to the Property.

32.2. Tenant shall, at Landlord's request, promptly execute such further documents as may be reasonably appropriate to assist Landlord in the performance of its obligations hereunder; provided that Tenant need not execute any document that creates additional liability for Tenant or that deprives Tenant of the quiet enjoyment and use of the Premises as provided by this Lease.

32.3. Landlord may, at any and all reasonable times during non-business hours (or during business hours if Tenant so requests), and upon twenty-four (24) hours' prior notice (provided that no time restrictions shall apply or advance notice be required if an emergency necessitates immediate entry), enter the Premises to (a) inspect the same and to determine whether Tenant is in compliance with its obligations hereunder, (b) supply any service Landlord is required to provide hereunder, (c) show the Premises to prospective purchasers or tenants during the last nine (9) months of the Term, (d) post notices of nonresponsibility, (e) access the telephone equipment, electrical substation and fire risers and (f) alter, improve or repair any portion of the Building other than the Premises for which access to the Premises is reasonably necessary. In connection with any such alteration, improvement or repair as described in Subsection 32.3(f) above, Landlord may erect in the Premises or elsewhere in the Project scaffolding and other structures reasonably required for the alteration, improvement or repair work to be performed. In no event shall Tenant's Rent abate as a result of Landlord's activities pursuant to this Section 32.3; provided, however, that all such activities shall be conducted in such a manner so as to cause as little interference to Tenant as is reasonably possible. Landlord shall at all times retain a key with which to unlock all of the doors in the Premises. If an emergency involving risk of serious injury or damage to persons or property necessitates immediate access to the Premises, Landlord may use whatever force is necessary to enter the Premises, and any such entry to the Premises shall not constitute a forcible or unlawful entry to the Premises, a detainer of the Premises, or an eviction of Tenant from the Premises or any portion thereof. Except in the event of an emergency involving the risk of serious injury or damage to persons or property, any entry of the Premises pursuant to this Section 32.3 (other than for routine janitorial service) shall be arranged in advance with Tenant, and all such entries shall be guided by a Tenant representative; provided that Tenant shall make such a representative reasonably available. Under no circumstances shall any party be allowed to enter the reference lab located in the Premises, but parties shall be permitted to view the reference lab through an open door while standing outside the reference lab.

33. Quiet Enjoyment. So long as Tenant is not in default under this Lease, Landlord or anyone acting through or under Landlord shall not disturb Tenant's occupancy of the Premises, except as permitted by this Lease.

34. Subordination and Attornment.

34.1. This Lease shall be subject and subordinate to the lien of any mortgage, deed of trust, or lease in which Landlord is tenant now or hereafter in force against the Building or the Project and to all advances made or hereafter to be made upon the security thereof without the necessity of the execution and delivery of any further instruments on the part of Tenant to effectuate such subordination.

34.2. Notwithstanding the foregoing, Tenant shall execute and deliver upon demand such further instrument or instruments evidencing such subordination of this Lease to the lien of any such mortgage or mortgages or deeds of trust or lease in which Landlord is tenant as may be required by Landlord, subject to the delivery to Tenant, at no cost to Landlord, of a subordination, non-disturbance and attornment agreement from the holder of each such mortgage deed of trust or from such lessor substantially in the form attached as Exhibit F hereto, which requires such holder or lessor to accept this Lease, and not to disturb Tenant's possession, so long as Tenant is not in default under this Lease (a "Subordination, Non-Disturbance and Attornment Agreement"). However, if any such mortgagee, beneficiary or landlord under lease wherein Landlord is tenant so elects, this Lease shall be deemed prior in lien to any such lease, mortgage, or deed of trust upon or including the Premises regardless of date and Tenant shall execute a statement in writing to such effect at Landlord's request. If Tenant fails to execute any document required from Tenant under this Section within ten (10) business days after written request therefor, Tenant hereby constitutes and appoints Landlord as its special attorney-in-fact to execute and deliver any such document or documents in the name of Tenant. Such power is coupled with an interest and is irrevocable.

34.3. In the event any proceedings are brought for foreclosure, or in the event of the exercise of the power of sale under any mortgage or deed of trust made by the Landlord covering the Premises, the Tenant shall at the election of the purchaser at such foreclosure or sale attorn to the purchaser upon any such foreclosure or sale and recognize such purchaser as the Landlord under this Lease.

34.4. Within thirty (30) days after the execution of this Lease by both parties, Landlord shall deliver to Tenant a Subordination, Non-Disturbance and Attornment Agreement in a form reasonably acceptable to Tenant executed by each holder of a mortgage or deed of trust covering the Premises. The execution and/or delivery by any such holder of such a Subordination, Non-Disturbance and Attornment Agreement is a condition precedent to Tenant's obligations under this Lease, and Tenant shall have the right to terminate this Lease by written notice provided to Landlord within ten (10) days after the expiration of such initial thirty (30) day period, if such condition precedent is not satisfied in a timely manner; provided that Landlord shall have ten (10) business days after receipt of such written notice from Tenant to provide such Subordination, Non-Disturbance and Attornment Agreement to Tenant. If Tenant fails to timely terminate this Lease as set forth in the preceding sentence, Tenant shall be deemed to have waived its right to terminate this Lease pursuant to this Section 34.4. Landlord represents and warrants to Tenant that there is currently no ground lease to which Landlord is a party affecting the Premises.

35. Surrender.

35.1. No surrender of possession of any part of the Premises shall release Tenant from any of its obligations hereunder, unless such surrender is accepted in writing by Landlord.

35.2. The voluntary or other surrender of this Lease by Tenant shall not effect a merger with Landlord's fee title or leasehold interest in the Premises, the Building or the Property, unless Landlord consents in writing, and shall, at Landlord's option, operate as an assignment to Landlord of any or all subleases.

35.3. The voluntary or other surrender of any ground or other underlying lease that now exists or may hereafter be executed affecting the Building or the Project, or a mutual cancellation thereof or of Landlord's interest therein by Landlord and its lessor shall not effect a merger with Landlord's fee title or leasehold interest in the Premises, the Building or the Property and shall, at the option of the successor to Landlord's interest in the Building or the Project, as applicable, operate as an assignment of this Lease.

36. Waiver and Modification. No provision of this Lease may be modified, amended or supplemented except by an agreement in writing signed by Landlord and Tenant. The waiver by Landlord of any breach by Tenant of any term, covenant or condition herein contained shall not be deemed to be a waiver of any subsequent breach of the same or any other term, covenant or condition herein contained.

37. Waiver of Jury Trial and Counterclaims. The parties waive trial by jury in any action, proceeding or counterclaim brought by the other party hereto related to matters arising out of or in any way connected with this Lease; the relationship between Landlord and Tenant; Tenant's use or occupancy of the Premises, the Building or the Project; or any claim of injury or damage related to this Lease or the Premises, the Building or the Project.

38. [Intentionally omitted]

39. Hazardous Materials.

39.1. Tenant shall not cause or permit any Hazardous Materials (as hereinafter defined) to be brought upon, kept or used in or about the Premises, the Building or the Project in violation of Applicable Laws by Tenant, its agents, employees, contractors or invitees. If (a) Tenant breaches such obligation, or if the presence of Hazardous Materials as a result of such a breach results in contamination of the Premises, the Building, the Project or any adjacent property, or (b) contamination of the Premises, the Building, the Project or any adjacent property by Hazardous Materials caused by Tenant or its agents, consultants, employees or invitees otherwise occurs during the term of this Lease or any extension or renewal hereof or holding over hereunder, then Tenant shall indemnify, save, defend and hold Landlord, its agents and contractors harmless from and against any and all claims, judgments, damages, penalties, fines, costs, liabilities and losses (including, without limitation, diminution in value of the Premises, the Building, the Project or any portion thereof; damages for the loss or restriction on use of rentable or usable space or of any amenity of the Premises or Project; damages arising from any adverse impact on marketing of space in the Premises, the Building or the Project; and sums paid in settlement of claims, attorneys' fees, consultants' fees and experts' fees) that arise during or

after the Term as a result of such breach or contamination. This indemnification of Landlord by Tenant includes, without limitation, costs incurred in connection with any investigation of site conditions or any cleanup, remedial, removal or restoration work required by any Governmental Authority because of Hazardous Materials present in the air, soil or groundwater above, on or under the Premises. Without limiting the foregoing, if the presence of any Hazardous Materials in, on, under or about the Premises, the Building, the Project or any adjacent property caused or permitted by Tenant results in any contamination of the Premises, the Building, the Project or any adjacent property, then Tenant shall promptly take all actions at its sole cost and expense as are necessary to return the Premises, the Building, the Project and any adjacent property to their respective condition existing prior to the time of such contamination; provided that Landlord's written approval of such action shall first be obtained, which approval Landlord shall not unreasonably withhold; and provided, further, that it shall be reasonable for Landlord to withhold its consent if such actions could have a material adverse long-term or short-term effect on the Premises, the Building or the Project.

39.2. Landlord acknowledges that it is not the intent of this Section 39 to prohibit Tenant from operating its business as described in Section 2.12 above. Tenant may operate its business according to the custom of Tenant's industry so long as the use or presence of Hazardous Materials is strictly and properly monitored according to Applicable Laws. As a material inducement to Landlord to allow Tenant to use Hazardous Materials in connection with its business, Tenant agrees to deliver to Landlord prior to the Term Commencement Date a list identifying each type of Hazardous Material to be present on the Premises and setting forth any and all governmental approvals or permits required in connection with the presence of such Hazardous Material on the Premises (the "Hazardous Materials List"). Tenant shall deliver to Landlord an updated Hazardous Materials List on or prior to each annual anniversary of the Term Commencement Date and shall also deliver an updated Hazardous Materials List before any new Hazardous Materials are brought onto the Premises. Tenant shall deliver to Landlord true and correct copies of the following documents (hereinafter referred to as the "Documents") relating to the handling, storage, disposal and emission of Hazardous Materials prior to the Term Commencement Date or, if unavailable at that time, concurrent with the receipt from or submission to any Governmental Authority: permits; approvals; reports and correspondence; storage and management plans; notices of violations of Applicable Laws; plans relating to the installation of any storage tanks to be installed in or under the Premises, the Building or the Project (provided that installation of storage tanks shall only be permitted after Landlord has given Tenant its written consent to do so, which consent Landlord may withhold in its sole and absolute discretion); and all closure plans or any other documents required by any and all Governmental Authority for any storage tanks installed in, on or under the Premises, the Building or the Project for the closure of any such storage tanks. Tenant shall not be required, however, to provide Landlord with any portion of the Documents containing information of a proprietary nature that, in and of themselves, do not contain a reference to any Hazardous Materials or activities related to Hazardous Materials. Upon Landlord's written request, Tenant agrees that it shall enter into a written agreement with other tenants of the Building and the Project concerning the equitable allocation of fire control areas (as defined in the Uniform Building Code as adopted by the City of Brisbane (the "UBC")) within the Building and the Project for the storage of Hazardous Materials. In the event that Tenant's use of Hazardous Materials is such that it utilizes fire control areas in the Building or the Project in excess of Tenant's Pro Rata Share of the Building or the Project, as applicable, as set forth in Section 2.8,

Tenant agrees that it shall, at its sole cost and expense and upon Landlord's written request, establish and maintain a separate area of the Premises classified by the UBC as an "H" occupancy area for the use and storage of Hazardous Materials or take such other action as is necessary to ensure that its share of the fire control areas of the Building and the Project is not greater than Tenant's Pro Rata Share of the Building or the Project, as applicable.

39.3. Notwithstanding the provisions of Section 39.1 above, if (a) Tenant or any proposed transferee, assignee or sublessee of Tenant has been required by any prior landlord, Lender or Governmental Authority to take remedial action in connection with Hazardous

Materials contaminating a property if the contamination resulted from such party's action or omission or use of the property in question or (ii) Tenant or any proposed transferee, assignee or sublessee is subject to an enforcement order issued by any Governmental Authority in connection with the use, disposal or storage of Hazardous Materials, then Landlord shall have the right to terminate this Lease in Landlord's sole and absolute discretion (with respect to any such matter involving Tenant), and it shall not be unreasonable for Landlord to withhold its consent to any proposed transfer, assignment or subletting (with respect to any such matter involving a proposed transferee, assignee or sublessee).

39.4. At any time, and from time to time, prior to the expiration of the Term, Landlord shall have the right to conduct appropriate tests of the Premises, the Building and the Project to demonstrate that Hazardous Materials are present or that contamination has occurred due to Tenant or Tenant's agents, employees or invitees. Tenant shall pay all reasonable costs of such tests of the Premises.

39.5. If underground or other storage tanks storing Hazardous Materials are hereafter placed on the Premises by Tenant, Tenant shall monitor the storage tanks, maintain appropriate records, implement reporting procedures, properly close any underground storage tanks, and take or cause to be taken all other steps necessary or required under the Applicable Laws.

39.6. Tenant's obligations under this Section 39 shall survive the expiration or earlier termination of the Lease. During any period of time needed by Tenant or Landlord after the termination of this Lease to complete the removal from the Premises of any such Hazardous Materials, Tenant shall continue to pay Rent in accordance with this Lease, which Rent shall be prorated daily.

39.7. As used herein, the term "Hazardous Material" means any hazardous or toxic substance, material or waste that is or becomes regulated by any Governmental Authority.

39.8. Notwithstanding anything in this Section 39 to the contrary, Landlord shall indemnify Tenant for any pre-existing environmental conditions present at the Building upon the date Tenant takes possession of any portion of the Premises, whether to conduct Tenant's normal business or to begin construction of tenant improvements. Tenant may engage, at its sole cost, an environmental consultant to conduct an environmental study in order to obtain a baseline of any pre-existing environmental conditions of the Premises; provided that Landlord shall not be deemed to have affirmed any data or conclusions reported in such study.

40. [Intentionally omitted]

41. Miscellaneous.

41.1. Where applicable in this Lease, the singular includes the plural and the masculine or neuter includes the masculine, feminine and neuter. The section headings of this Lease are not a part of this Lease and shall have no effect upon the construction or interpretation of any part hereof.

41.2. Submission of this instrument for examination or signature by Tenant does not constitute a reservation of or option for a lease, and shall not be effective as a lease or otherwise until execution by and delivery to both Landlord and Tenant.

41.3. Time is of the essence with respect to the performance of every provision of this Lease in which time of performance is a factor.

41.4. Each provision of this Lease performable by Tenant shall be deemed both a covenant and a condition.

41.5. Whenever consent or approval of either party is required, that party shall not unreasonably withhold, condition or delay such consent or approval, except as may be expressly set forth to the contrary.

41.6. The terms of this Lease are intended by the parties as a final expression of their agreement with respect to the terms as are included herein, and may not be contradicted by evidence of any prior or contemporaneous agreement.

41.7. Any provision of this Lease that shall prove to be invalid, void or illegal shall in no way affect, impair or invalidate any other provision hereof, and all other provisions of this Lease shall remain in full force and effect and shall be interpreted as if the invalid, void or illegal provision did not exist.

41.8. Landlord may, but shall not be obligated to, record this Lease or a short form memorandum hereof without Tenant's consent. Neither party shall record this Lease. Tenant shall be responsible for the cost of recording any memorandum of this Lease, including any transfer or other taxes incurred in connection with said recordation.

41.9. The language in all parts of this Lease shall be in all cases construed as a whole according to its fair meaning and not strictly for or against either Landlord or Tenant.

41.10. Each of the covenants, conditions and agreements herein contained shall inure to the benefit of and shall apply to and be binding upon the parties hereto and their respective heirs; legatees; devisees; executors; administrators; and permitted successors, assigns, sublessees. Nothing in this Section 41.10 shall in any way alter the provisions of this Lease restricting assignment or subletting.

41.11. Any notice, consent, demand, bill, statement or other communication required or permitted to be given hereunder shall be in writing and shall be given by personal delivery, overnight delivery with a reputable nationwide overnight delivery service, or certified mail (return receipt requested), and shall be deemed delivered upon receipt or refusal of receipt. Any

notices given pursuant to this Lease shall be addressed to Tenant at the Premises, or to Landlord or Tenant at the addresses shown in Sections 2.14 and 2.15, respectively. Either party may, by notice to the other given pursuant to this Section, specify additional or different addresses for notice purposes.

41.12. This Lease shall be governed by, construed and enforced in accordance with the laws of the State in which the Premises are located, without regard to such State's conflict of law principles.

41.13. That individual or those individuals signing this Lease guarantee, warrant and represent that said individual or individuals have the power, authority and legal capacity to sign this Lease on behalf of and to bind all entities, corporations, partnerships, limited liability companies, joint venturers or other organizations and entities on whose behalf said individual or individuals have signed.

41.14. To induce Landlord to enter into this Lease, Tenant agrees that it shall promptly furnish to Landlord, from time to time, upon Landlord's written request, the most recent audited year-end financial statements reflecting Tenant's current financial condition. Tenant represents and warrants that all financial statements, records and information furnished by Tenant to Landlord in connection with this Lease are true, correct and complete in all respects. Landlord agrees to keep all of the foregoing financial statements and the information contained therein confidential and not to such disclose such documents or information to any person or entity, except to any purchasers of the Building or the Project, any lenders on the Building or the Project, any investors in Landlord, and to the respective accountants, attorneys and advisors of Landlord and of each of the foregoing parties, and except as may be required by law or by court order.

41.15. This Lease may be executed in one or more counterparts, each of which, when taken together, shall constitute one and the same document.

42. Options to Extend Term. Tenant shall have options (each, an "Option") to extend the Term of this Lease upon the following terms and conditions:

42.1. Tenant shall have two (2) consecutive Options to extend the Term of this Lease by three (3) years each on the same terms and conditions as this Lease. Basic Annual Rent shall equal ninety-five percent (95%) of the fair market value ("FMV") for comparable office/research and development projects in the Brisbane/Peninsula market as of the date Tenant exercises the respective Option, increased on each annual anniversary of the commencement of each extended term by such percentage, if any, that constitutes a market rate annual increase for such market. In the event that Landlord and Tenant disagree as to the FMV, they shall hire an appraiser reasonably acceptable to both parties, the cost of which shall be split equally by Landlord and Tenant, which appraiser's decision as to the FMV shall be binding on both parties.

42.2. Notwithstanding anything in this Lease to the contrary, Tenant shall not assign or transfer an Option, either separately or in conjunction with an assignment or transfer of Tenant's interest in this Lease, without Landlord's prior written consent, which consent Landlord may withhold in its sole and absolute discretion.

42.3. The Options are conditional upon Tenant giving Landlord written notice of its election to exercise the applicable Option at least nine (9) months prior to the end of the expiration of the then-current Term of this Lease.

42.4. Notwithstanding anything contained in this Section 42, Tenant shall not have the right to exercise an Option:

(a) During the time commencing from the date Landlord delivers to Tenant a written notice that Tenant is in default under any provisions of this Lease and continuing until Tenant has cured the specified default to Landlord's reasonable satisfaction; or

(b) At any time after an event of Default as described in Section 24 of the Lease (provided, however, that, for purposes of this Subsection 42.4(b), Landlord shall not be required to provide Tenant with notice of such Default) and continuing until Tenant cures any such Default, if such Default is susceptible to being cured; or

(c) In the event that Tenant has committed a Default two (2) or more times and a service or late charge has become payable under Section 24.1 for each of such Defaults during the twelve (12)-month period immediately prior to the date that Tenant intends to exercise the Option, whether or not Tenant cures such Defaults within any applicable cure period.

42.5. The period of time within which Tenant may exercise an Option shall not be extended or enlarged by reason of Tenant's inability to exercise such Option because of the provisions of Section 42.4.

42.6. All of Tenant's rights under the provisions of the Option shall terminate and be of no further force or effect even after Tenant's due and timely exercise of an Option if, after such exercise, but prior to the commencement date of the new term, (a) Tenant fails to pay to Landlord a monetary obligation of Tenant for a period of twenty (20) days after written notice from Landlord to Tenant, (b) Tenant fails to commence to cure a default (other than a monetary default) within thirty (30) days after the date Landlord gives notice to Tenant of such default or (c) Tenant has defaulted under this Lease three (3) or more times and a service or late charge under Section 24.1 has become payable for any such default, whether or not Tenant has cured such defaults.

43. Right of First Refusal. During the first (1st) three (3) years after the Term Commencement Date, Tenant shall have a right of first refusal ("ROFR") as to any rentable premises in the Building for which Landlord is seeking a tenant ("Available Premises"). In the event Landlord receives a bonafide offer to lease from a third party tenant the Available Premises, which offer is acceptable to Landlord in its sole and absolute discretion, Landlord shall provide written notice thereof to Tenant (the "Notice of Offer"), specifying the material terms and conditions of a proposed lease to Tenant of the Available Premises, which shall be the same as the terms of the bonafide offer, except that the term of any lease entered into by Tenant with respect to the Available Premises shall be coterminous with the Term.

43.1. Within five (5) business days following its receipt of a Notice of Offer, Tenant shall advise Landlord in writing whether Tenant elects to lease the Available Premises on the terms and conditions set forth in the Notice of Offer. If Tenant fails to notify Landlord of Tenant's election within said five (5) business day period, then Tenant shall be deemed to have elected not to lease the Available Premises.

43.2. If Tenant timely notifies Landlord that Tenant elects to lease the Available Premises on the terms and conditions set forth in the Notice of Offer, then Landlord shall lease the Available Premises to Tenant upon the terms and conditions set forth in the Notice of Offer.

43.3. If Tenant notifies Landlord that Tenant elects not to lease the Available Premises on the terms and conditions set forth in the Notice of Offer, or if Tenant fails to notify Landlord of Tenant's election within the five (5) business day period described above, then Landlord shall have the right to consummate the lease of the Available Premises on the same terms as set forth in the Notice of Offer to a third party tenant.

43.4. Notwithstanding anything in this Section 43 to the contrary, Tenant shall not exercise the ROFR during such period of time that Tenant is in default under any provision of this Lease. Any attempted exercise of the ROFR during a period of time in which Tenant is so in Default shall be void and of no effect. In addition, Tenant shall not be entitled to exercise the ROFR if Tenant has committed a Default two (2) or more times during the twelve (12) month period prior to the date on which Tenant seeks to exercise the ROFR, whether or not Tenant cures such Defaults within any applicable cure period.

43.5. Notwithstanding anything in this Lease to the contrary, Tenant shall not assign or transfer the ROFR, either separately or in conjunction with an assignment or transfer of Tenant's interest in the Lease, without Landlord's prior written consent, which consent Landlord may withhold in its sole and absolute discretion; provided, however, that Landlord's consent shall not be required for Tenant's assignment of the ROFR in connection with an Allowed Transfer.

[REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK]

IN WITNESS WHEREOF, the parties hereto have executed this Lease as of the date first above written.

LANDLORD:

BMR-BAYSHORE BOULEYARD LLC,
a Delaware limited liability company

By: /s/ Gary A. Kreitzer
Name: Gary A. Kreitzer
Title: Executive Vice President

Dated: May 1, 2006

TENANT:

EXPRESSION DIAGNOSTICS, INC.,
a Delaware corporation

By: /s/ Pierre G. Cassigneul
Name: Pierre G. Cassigneul
Title: CEO

Dated: May 2, 2006

Exhibit A

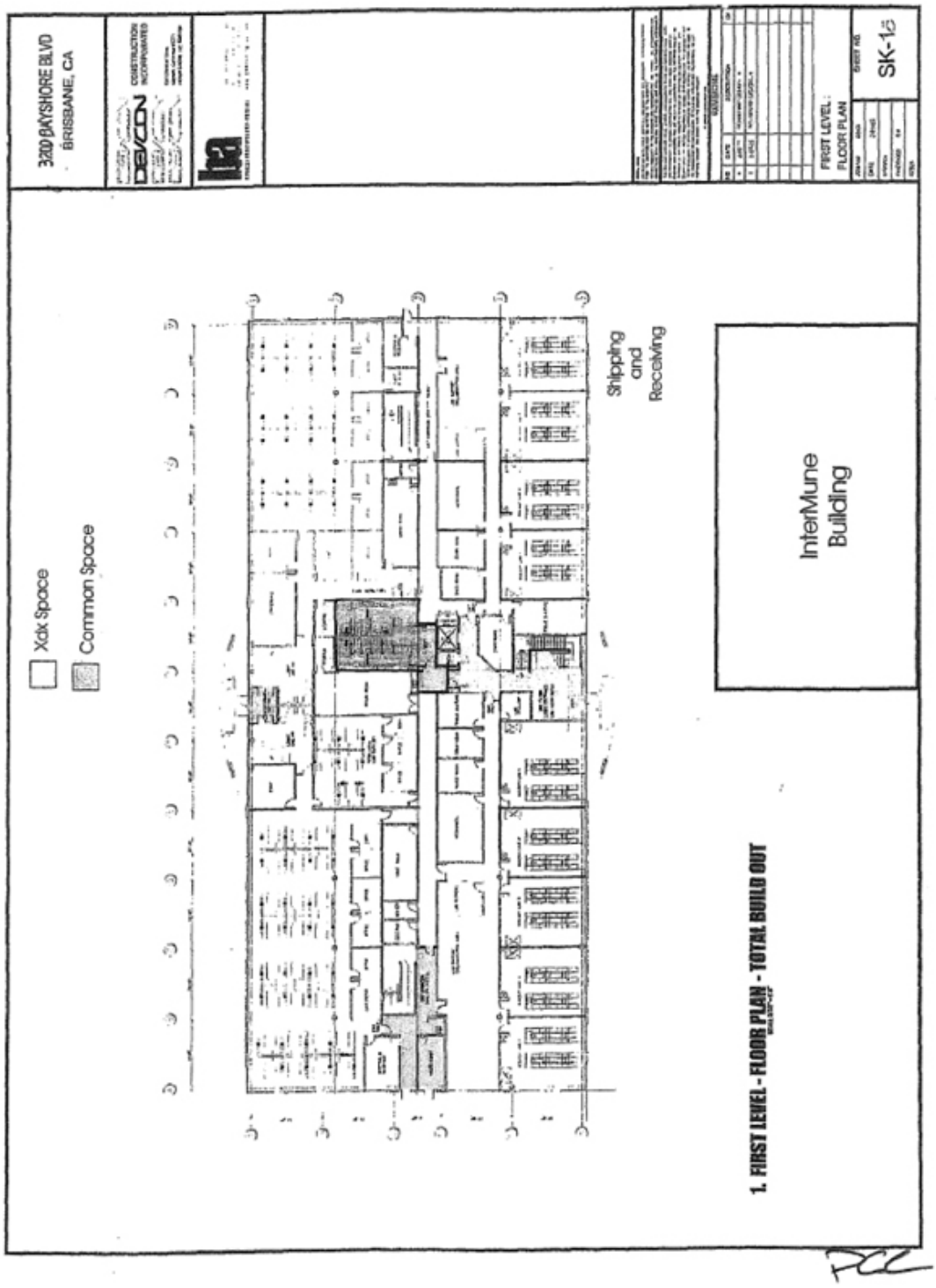
3200 BAYSHORE BLVD
BRISBANE, CA
FIRST LEVEL - FLOOR PLAN
SK-1
Xdx Space
Common Space
Shipping and Receiving
InterMune Building
1. FIRST LEVEL - FLOOR PLAN - TOTAL BUILD OUT

Exhibit A

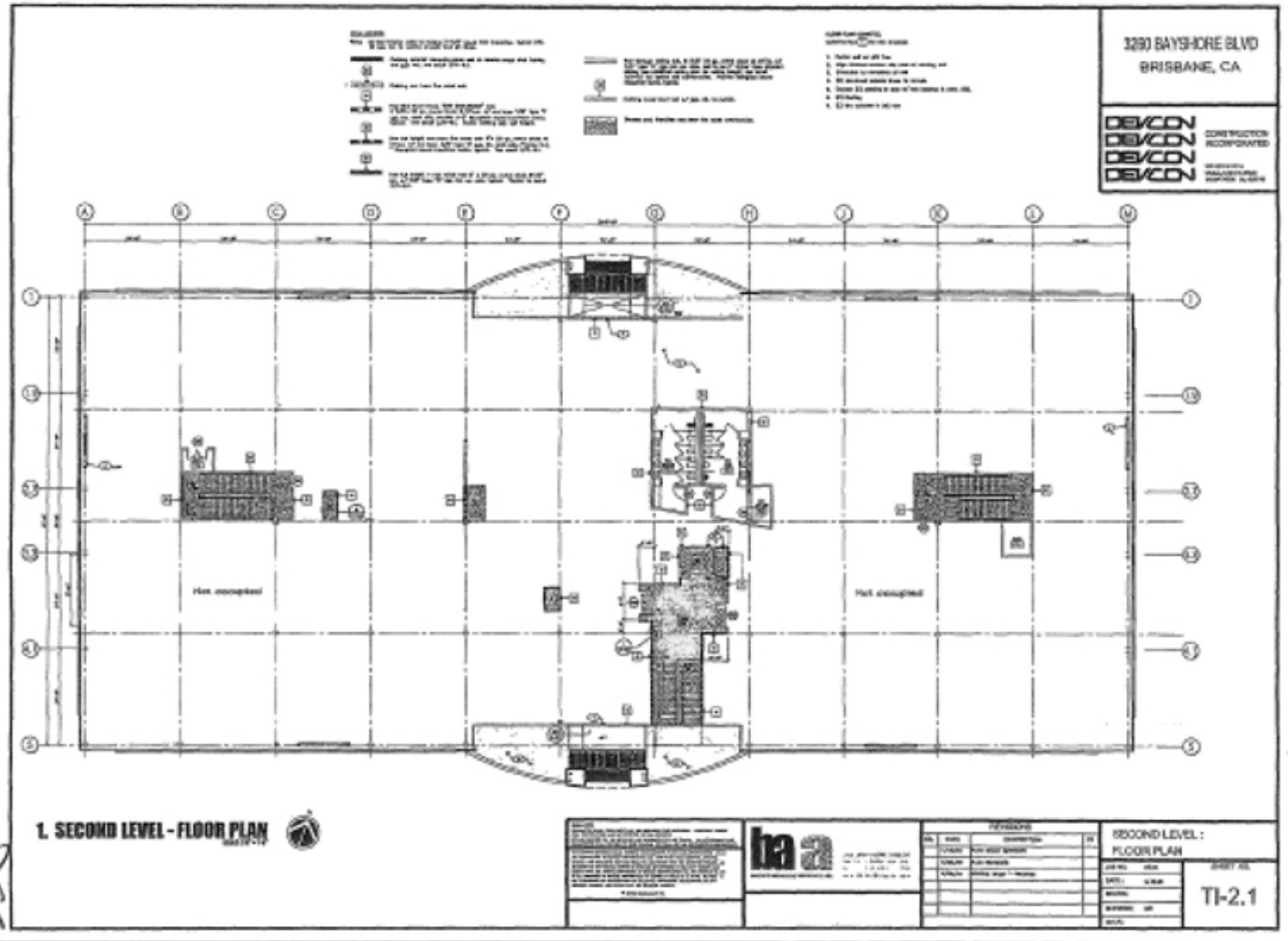
3280 BAYSHORE BLVD
BRISBANE, CA
DEVCON CONSTRUCTION INCORPORATED
Not occupied
Not occupied
1. SECOND LEVEL - FLOOR PLAN
SECOND LEVEL : FLOOR PLAN
TI-2.1

EXHIBIT B

ACKNOWLEDGEMENT OF TERM COMMENCEMENT DATE
AND TERM EXPIRATION DATE

THIS ACKNOWLEDGEMENT OF TERM COMMENCEMENT DATE AND TERM EXPIRATION DATE is entered into as of [ ], 20[ ], with reference to that certain Lease (the "Lease") dated as of [ ], 2006, by EXPRESSION DIAGNOSTICS, INC., a Delaware corporation ("Tenant"), in favor of BMR-BAYSHORE BOULEYARD LLC, a Delaware limited liability company ("Landlord"). All capitalized terms used herein without definition shall have the meanings ascribed to them in the Lease.

Tenant hereby confirms the following:

1. Tenant accepted possession of the Premises on [ ], 2006.

2. The Premises are in good order, condition and repair.

3. The Tenant Improvements required to be constructed by Landlord under the Lease have been substantially completed.

4. All conditions of the Lease to be performed by Landlord as a condition to the full effectiveness of the Lease have been satisfied, and Landlord has fulfilled all of its duties in the nature of inducements offered to Tenant to lease the Premises.

5. In accordance with the provisions of Section 4.2 of the Lease, the Term Commencement Date is [ ], 20[ ], and, unless the Lease is terminated prior to the Term Expiration Date pursuant to its terms, the Lease Expiration Date shall be [ ], 20[ ].

6. The Lease is in full force and effect, and the same represents the entire agreement between Landlord and Tenant concerning the Premises[, except [ ]].

7. Tenant has no existing defenses against the enforcement of the Lease by Landlord, and there exist no offsets or credits against Rent owed or to be owed by Tenant.

8. The obligation to pay Rent is presently in effect and all Rent obligations on the part of Tenant under the Lease commenced to accrue on [ ], 20[ ].

9. The undersigned Tenant has not made any prior assignment, transfer, hypothecation or pledge of the Lease or of the rents thereunder or sublease of the Premises or any portion thereof.

[REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK]

IN WITNESS WHEREOF, the parties hereto have executed this Acknowledgment of Term Commencement Date and Term Expiration Date as of [ ], 20[ ].

TENANT:

EXPRESSION DIAGNOSTICS, INC.,
a Delaware corporation

By: _____
Name: _____
Title: _____

EXHIBIT D

RULES AND REGULATIONS

NOTHING IN THESE RULES AND REGULATIONS ("RULES AND REGULATIONS") SHALL SUPPLANT ANY PROVISION OF THE LEASE. IN THE EVENT OF A CONFLICT OR INCONSISTENCY BETWEEN THESE RULES AND REGULATIONS AND THE LEASE, THE LEASE SHALL PREYAIL.

1. Except as specifically provided in the Lease to which these Rules and Regulations are attached, no sign, placard, picture, advertisement, name or notice shall be installed or displayed on any part of the outside of the Premises or the Building without Landlord's prior written consent. Landlord shall have the right to remove, at Tenant's sole cost and expense and without notice, any sign installed or displayed in violation of this rule.

2. If Landlord objects in writing to any curtains, blinds, shades, screens or hanging plants or other similar objects attached to or used in connection with any window or door of the Premises or placed on any windowsill, which window, door or windowsill is (a) visible from the exterior of the Premises and (b) not included in plans approved by Landlord, then Tenant shall promptly remove said curtains, blinds, shades, screens or hanging plants or other similar objects at its sole cost and expense.

3. Tenant shall not obstruct any sidewalks or entrances to the Building, or any halls, passages, exits, entrances or stairways within the Premises, in any case that are required to be kept clear for health and safety reasons.

4. No deliveries shall be made that impede or interfere with other tenants in or the operation of the Project.

5. Tenant shall not place a load upon any floor of the Premises that exceeds the load per square foot that (a) such floor was designed to carry or (b) that is allowed by Applicable Laws. Fixtures and equipment that cause noises or vibrations that may be transmitted to the structure of the Building to such a degree as to be objectionable to other tenants shall be placed and maintained by Tenant, at Tenant's sole cost and expense, on vibration eliminators or other devices sufficient to eliminate such noises and vibrations to levels reasonably acceptable to Landlord and other tenants of the Building.

6. Tenant shall not use any method of heating or air conditioning other than that shown in the Tenant Improvement plans.

7. Tenant shall not install any radio, television or other antenna, cell or other communications equipment, or any other devices on the roof or exterior walls of the Premises except to the extent shown on approved Tenant Improvements plans. Tenant shall not interfere with radio, television or other communications from or in the Premises or elsewhere.

8. Canvassing, peddling, soliciting and distributing handbills or any other written material within, on or around the Project (other than within the Premises) are prohibited, and Tenant shall cooperate to prevent such activities.

9. Tenant shall store all of its trash, garbage and Hazardous Materials within its Premises or in designated receptacles outside of the Premises. Tenant shall not place in any such receptacle any material that cannot be disposed of in the ordinary and customary manner of trash, garbage and Hazardous Materials disposal.

10. The Premises shall not be used for any improper or immoral purpose. No cooking shall be done or permitted on the Premises, except in accordance with (a) the requirements of insurance policies that Landlord or Tenant is required to purchase and maintain pursuant to the Lease and (b) Applicable Laws.

11. Tenant shall not, without Landlord's prior written consent, use the name of the Project, if any, in connection with or in promoting or advertising Tenant's business except as Tenant's address.

12. Tenant shall comply with all safety, fire protection and evacuation procedures and regulations established by Landlord or any Governmental Authority.

13. Tenant assumes any and all responsibility for protecting the Premises from theft, robbery and pilferage, which responsibility includes keeping doors locked and other means of entry to the Premises closed.

14. Landlord may waive any one or more of these Rules and Regulations for the benefit of Tenant or any other tenant, but no such waiver by Landlord shall be construed as a waiver of such Rules and Regulations in favor of Tenant or any other tenant, nor prevent Landlord from thereafter enforcing any such Rules and Regulations against any or all of the tenants of the Project, including Tenant.

15. These Rules and Regulations are in addition to, and shall not be construed to in any way modify or amend, in whole or in part, the terms covenants, agreements and conditions of the Lease.

16. Landlord reserves the right to make such other and reasonable rules and regulations as, in its judgment, may from time to time be needed for safety and security, the care and cleanliness of the Project, or the preservation of good order therein; provided, however, that Landlord shall provide written notice to Tenant of such rules and regulations prior to them taking effect. Tenant agrees to abide by these Rules and Regulations and any additional rules and regulations issued or adopted by Landlord.

17. Tenant shall be responsible for the observance of these Rules and Regulations by Tenant's employees, agents, clients, customers, invitees and guests.

EXHIBIT E

FORM OF ESTOPPEL CERTIFICATE

To: BMR-BAYSHORE BOULEVARD LLC
17140 Bernardo Center Drive, Suite 222
San Diego, CA 92128
Attention: General Counsel

BioMed Realty, L.P.
c/o BioMed Realty Trust, Inc.
17140 Bernardo Center Drive, Suite 222
San Diego, CA 92128

Re: The Premises (the "Premises") at 3260 Bayshore Boulevard, Brisbane, California (the "Property")

The undersigned tenant ("Tenant") hereby certifies to you as follows:

1. Tenant is a tenant at the Property under a lease (the "Lease") for the Premises dated as of [ ], 2006. The Lease has not been cancelled, modified, assigned, extended or amended [except as follows: [ ]], and there are no other agreements, written or oral, affecting or relating to Tenant's lease of the Premises or any other space at the Property. The lease term expires on [ ], 20[ ].

2. Tenant took possession of the Premises, currently consisting of [ ] square feet, on [ ], 20[ ], and commenced to pay rent on [ ], 20[ ]. Tenant has full possession of the Premises, has not assigned the Lease or sublet any part of the Premises, a11d does not hold the Premises under an assignment or sublease[, except as follows: [ ]].

3. All base rent, rent escalations and additional rent under the Lease have been paid through [ ], 20[ ]. There is no prepaid rent[, except $[ ]], and the amount of security deposit is $[ ] in the form of a letter of credit. Tenant currently has no right to any future rent abatement under the Lease.

4. Base rent is currently payable in the amount of $[ ] per month.

5. Tenant is currently paying estimated payments of additional rent of $[ ] per month on account of real estate taxes, insurance, management fees and common area maintenance expenses.

6. All work to be performed for Tenant under the Lease has been performed as required under the Lease and has been accepted by Tenant[, except [ ]], and all allowances to be paid to Tenant, including allowances for tenant improvements, moving expenses or other items, have been paid.

7. The Lease is in full force and effect, free from default and free from any event that could become a default under the Lease, and Tenant has no claims against the landlord or offsets or defenses against rent, and there are no disputes with the landlord. Tenant has received no notice of prior sale, transfer, assignment, hypothecation or pledge of the Lease or of the rents payable thereunder[, except [ ]].

8. [Tenant has the following expansion rights or options for the Property: [ ].][Tenant has no rights or options to purchase the Property.]

9. To Tenant's knowledge, no hazardous wastes have been generated, treated, stored or disposed of by or on behalf of the Tenant in, on or around the Premises or the Project in violation of any environmental laws.

10. The undersigned has executed this Estoppel Certificate with the knowledge and understanding that [INSERT NAME OF LANDLORD, PURCHASER OR LENDER, AS APPROPRIATE] or its assignee is acquiring the Property in reliance on this certificate and that the undersigned shall be bound by this certificate. The statements contained herein may be relied upon by [INSERT NAME OF PURCHASER OR LENDER, AS APPROPRIATE], BMR-Bayshore Boulevard LLC, BioMed Realty, L.P., BioMed Realty Trust, Inc., and any mortgagee of the Property and their respective successors and assigns.

Any capitalized terms not defined herein shall have the respective meanings given in the Lease.

Dated this [ ] day of, [ ], 20[ ].

[ ],
a [ ]

By: _____
Name: _____
Title: _____

EXHIBIT F

FORM OF SUBORDINATION, NON DISTURBANCE AND ATTORNMENT AGREEMENT

RECORDING REQUESTED BY

_____

WHEN RECORDED MAIL TO

The Northwestern Mutual Life Ins. Co.
720 East Wisconsin Ave. - Rm N16WC
Milwaukee, WI 53202
Attn:
Loan No. SPACE ABOVE THIS LINE FOR RECORDER'S USE

NON DISTURBANCE AND ATTORNMENT AGREEMENT

THIS AGREEMENT is entered into as of , 20 , between , whose mailing address is , ("Tenant"), , whose mailing address is , ("Borrower"), and THE NORTHWESTERN MUTUAL LIFE INSURANCE COMPANY, a Wisconsin corporation ("Lender"), whose address for notices is 720 East Wisconsin Avenue, Milwaukee, WI 53202, Attention: Real Estate Investment Department, Reference Loan No. .

RECITALS

A. Tenant is the lessee or successor to the lessee, and Borrower is the lessor or successor to the lessor under a certain lease dated , 20 (the "Lease").

B. Lender has made, or will make, a mortgage loan to be secured by a mortgage, deed to secure a debt or deed of trust from Borrower for the benefit of Lender (as it may be amended, restated or otherwise modified from time to time, the "Lien Instrument") encumbering the fee title to and/or leasehold interest in the land described in Exhibit A attached hereto and the improvements thereon (collectively, the "Property"), wherein the premises covered by the Lease (the "Demised Premises") are located.

C. Borrower and Lender have executed, or will execute, an Absolute Assignment of Leases and Rents (the "Absolute Assignment"), pursuant to which (i) the Lease is assigned to Lender and (ii) Lender grants a license back to Borrower permitting Borrower to collect all rents, income and other sums payable under the Lease until the revocation by Lender of such license, at which time all rents, income and other sums payable under the Lease are to be paid to Lender.

D. Lender has required the execution of this Agreement by Borrower and Tenant as a condition to Lender making the requested mortgage loan or consenting to the Lease.

E. Tenant acknowledges that, as its consideration for entering into this Agreement, Tenant will benefit by entering into an agreement with Lender concerning Tenant's relationship with any purchaser or transferee of the Property (including Lender) in the event of foreclosure of the Lien Instrument or a transfer of the Property by deed in lieu of foreclosure (any such purchaser or transferee and each of their respective successors or assigns is hereinafter referred to as "Successor Landlord").

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing, the mutual covenants and agreements contained herein, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Tenant, Borrower and Lender agree as follows:

1. Tenant and Borrower agree for the benefit of Lender that:

(a) Tenant shall not pay, and Borrower shall not accept, any rent or additional rent more than one month in advance;

(b) Except as specifically provided in the Lease, Tenant and Borrower will not enter into any agreement for the cancellation of the Lease or the surrender of the Demised Premises without Lender's prior written consent;

(c) Tenant and Borrower will not enter into any agreement amending or modifying the Lease without Lender's prior written consent, except for amendments or modifications specifically contemplated in the Lease for confirming the lease commencement date, the rent commencement date, the term, the square footage leased, the renewal or extension of the Lease, or the leasing of additional space at the Property;

(d) Tenant will not terminate the Lease because of a default thereunder by Borrower unless Tenant shall have first given Lender written notice and a reasonable opportunity to cure such default;

(e) Tenant, upon receipt of notice from Lender that it has exercised its rights under the Absolute Assignment and revoked the license granted to Borrower to collect all rents, income and other sums payable under the Lease, shall pay to Lender all rent and other payments then or thereafter due under the Lease, and any such payments to Lender shall be credited against the rent or other obligations due under the Lease as if made to Borrower;

(f) Tenant will not conduct any dry cleaning operations on the Demised Premises using chlorinated solvents nor will Tenant use any chlorinated solvents in the operation of their business on the Demised Premises. Notwithstanding the above, Tenant's use and storage of a product which contains no more than sixteen (16) ounces of chlorinated solvents, in solution or in pure form, shall not violate

this prohibition if, and only if, (i) Tenant's use, storage, and the ultimate disposal, of said solvents is at all times in compliance with applicable law; (ii) said solvents are acquired and kept in prepackaged containers; and (iii) tenant keeps no more than one (1) prepackaged container of said solvents on the Property; and

(g) Tenant shall pay any and all termination fees due and payable under the Lease directly to Lender.

2. The Lease is hereby subordinated in all respects to the Lien Instrument and to all renewals, modifications and extensions thereof, subject to the terms and conditions hereinafter set forth in this Agreement, but Tenant waives, to the fullest extent it may lawfully do so, the provisions of any statute or rule of law now or hereafter in effect that may give or purport to give it any right or election to terminate or otherwise adversely affect the Lease or the obligations of Tenant thereunder by reason of any foreclosure proceeding.

3. Borrower, Tenant and Lender agree that, unless Lender shall otherwise consent in writing, the fee title to, or any leasehold interest in, the Property and the leasehold estate created by the Lease shall not merge but shall remain separate and distinct, notwithstanding the union of said estates either in Borrower or Tenant or any third party by purchase, assignment or otherwise.

4. If the interests of Borrower in the Property are acquired by a Successor Landlord:

(a) If Tenant shall not then be in default in the payment of rent or other sums due under the Lease or be otherwise in material default under the Lease, the Lease shall not terminate or be terminated and the rights of Tenant thereunder shall continue in full force and effect except as provided in this Agreement;

(b) Tenant agrees to attorn to Successor Landlord as its lessor; Tenant shall be bound under all of the terms, covenants and conditions of the Lease for the balance of the term thereof, including any renewal options which are exercised in accordance with the terms of the Lease;

(c) The interests so acquired shall not merge with any other interests of Successor Landlord in the Property if such merger would result in the termination of the Lease;

(d) If, notwithstanding any other provisions of this Agreement, the acquisition by Successor Landlord of the interests of Borrower in the Property results, in whole or part, in the termination of the Lease, there shall be deemed to have been created a lease between Successor Landlord and Tenant on the same terms and conditions as the Lease, except as modified by this Agreement, for the remainder of the term of the Lease with renewal options, if any; and

(e) Successor Landlord shall be bound to Tenant under all of the terms, covenants and conditions of the Lease, and Tenant shall, from and after Successor Landlord's acquisition of the interests of Borrower in the real estate, have the same remedies against Successor Landlord for the breach of the Lease that Tenant would have had under the Lease against Borrower if the Successor Landlord had not succeeded to the interests of Borrower; provided, however, that Successor Landlord shall not be:

(i) Liable for the breach of any representations or warranties set forth in the Lease or for any act, omission or obligation of any landlord (including Borrower) or any other party occurring or accruing prior to the date of Successor Landlord's acquisition of the interests of Borrower in the Demised Premises, except for any repair and maintenance obligations of a continuing nature as of the date of such acquisition;

(ii) Liable for any obligation to construct any improvements in, or make any alterations to, the Demised Premises, or to reimburse Tenant by way of allowance or otherwise for any such improvements or alterations constructed or made, or to be constructed or made, by or on behalf of Tenant in the Demised Premises;

(iii) Subject to any offsets or defenses which Tenant might have against any landlord (including Borrower) prior to the date of Successor Landlord's acquisition of the interests of Borrower in the Demised Premises;

(iv) Liable for the return of any security deposit under the Lease unless such security deposit shall have been actually deposited with Successor Landlord;

(v) Bound to Tenant subsequent to the date upon which Successor Landlord transfers its interest in the Demised Premises to any third party;

(vi) Liable to Tenant under any indemnification provisions set forth in the Lease; or

(vii) Liable for any damages in excess of Successor Landlord's equity in the Property.

The provisions of this paragraph shall be effective and self-operative immediately upon Successor Landlord succeeding to the interests of Borrower without the execution of any other instrument.

5. Tenant represents and warrants that Tenant, all persons and entities owning (directly or indirectly) an ownership interest in Tenant and all guarantors of all or any portion of the Lease: (i) are not, and shall not become, a person or entity with whom Lender is restricted from doing business with under regulations of the Office of Foreign Asset Control ("OFAC") of the Department of the Treasury (including, but not limited to, those named on OFAC's Specially Designated and Blocked Persons list) or under any statute, executive order (including, but not limited to, the September 24, 2001 Executive Order Blocking Property and Prohibiting Transactions With Persons Who Commit, Threaten to Commit, or Support Terrorism), or other governmental action; (ii) are not knowingly engaged in, and shall not engage in, any dealings or transaction or be otherwise associated with such persons or entities described in (i) above; and (iii) are not, and shall not become, a person or entity whose activities are regulated by the International Money Laundering Abatement and Financial Anti-Terrorism Act of 2001 or the regulations or orders thereunder.

6. This Agreement may not be modified orally or in any other manner except by an agreement in writing signed by the parties hereto or their respective successors in interest. In the event of any conflict between the terms of this Agreement and the terms of the Lease, the terms of this Agreement shall prevail. This Agreement shall inure to the benefit of and be binding upon the parties hereto, their respective heirs, successors and assigns, and shall remain in full force and effect notwithstanding any renewal, extension, increase, or refinance of the indebtedness secured by the Lien Instrument, without further confirmation. Upon recorded satisfaction of the Lien Instrument, this Agreement shall become null and void and be of no further effect.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first above written.

TENANT: _____

By: _____

Attest: _____
Secretary

STATE OF)
)ss.
COUNTY OF)

On , before me, , personally appeared personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature _____

_____
Name (typed or printed)

(Signatures of Borrower and Lender continued on following pages)

(Signatures continued)

BORROWER: _____

By: _____

Attest: _____
Secretary

STATE OF)
)ss.
COUNTY OF)

On , before me, , personally appeared personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature _____

_____
Name (typed or printed)

(Signatures of Lender continued on following pages)

LENDER: THE NORTHWESTERN MUTUAL LIFE INSURANCE COMPANY, a Wisconsin corporation

By: Northwestern Investment Management Company, LLC, a Delaware limited liability company, its wholly-owned affiliate and authorized representative

By: _____
, Managing Director

Attest: _____
, Assistant Secretary

STATE OF WISCONSIN)
)ss.
COUNTY OF MILWAUKEE)

The foregoing instrument was acknowledged before me this day of , 200 , by and the Managing Director and Assistant Secretary respectively, of Northwestern Investment Management Company, LLC, on behalf of THE NORTHWESTERN MUTUAL LIFE INSURANCE COMPANY and acknowledged the execution of the foregoing instrument as the act and deed of said corporation.

My commission expires:

_____
Notary Public

This instrument was prepared by , Attorney, for The Northwestern Mutual Life Insurance Company, 720 East Wisconsin Avenue, Milwaukee, WI 53202.

EXHIBIT G

WORK LETTER

This Work Letter (the "Work Letter") is made and entered into as of April 27, 2006, by and between BMR-BAYSHORE BOULEYARD LLC, a Delaware limited liability company ("Landlord"), and EXPRESSION DIAGNOSTICS, INC., a Delaware corporation ("Tenant"), and is attached to and made a part of that certain Lease dated as of April 27, 2006 (the "Lease"), by and between Landlord and Tenant for the Premises located at 3260 Bayshore Boulevard Brisbane, California. All capitalized terms used but not otherwise defined herein shall have the meanings given them in the Lease.

1. General Requirements.

1.1. Tenant's Authorized Representative. Tenant designates Vikram Jog, Steve Langford and Avi Kulkarni (each, "Tenant's Authorized Representative") as the persons authorized to initial all plans, drawings, changes orders and approvals pursuant to this Work Letter. Landlord shall not be obligated to respond to or act upon any such item until such item has been initialed by any Tenant's Authorized Representative.

1.2. Schedule. The schedule for design and development of Tenant's Work (as hereinafter defined), including, without limitation, the time periods for preparation and review of construction documents, approvals and performance, shall be in accordance with a schedule prepared by Tenant (the "Schedule"), which Schedule shall be subject to Landlord's reasonable approval. The Schedule shall be subject to adjustment as mutually agreed upon in writing by the parties, or as provided in this Work Letter.

1.3. Architects and Consultants. The architect, engineering consultants, design team, general contractor and subcontractors responsible for the construction of Tenant's Work shall be selected by Tenant and approved by Landlord. Landlord's approval of the same shall not be unreasonably withheld. Tenant agrees that it shall obtain bids from, among others, ACCO as its HVAC design/build contractor, KDS Plumbing as the plumbing design/build contractor and Cupertino Electric as its electrical design/build contractor.

2. Tenant's Work.

2.1. Tenant Work Plans. All work to be performed on the Premises shall be performed by Tenant ("Tenant's Work") at Tenant's sole cost and expense and without cost to Landlord (except for the Total TI Allowance) and in accordance with the Approved Plans (as defined below). The quality of Tenant's Work shall be of a nature and character not less than (a) the quality of the tenant improvements in place at the Building and the Project as of the date of the Lease and (b) Landlord's building standards. Tenant shall submit such design drawings, plans and specifications as Landlord may reasonably request (the "Tenant Work Plans"). Tenant shall prepare and submit to Landlord for approval schematics covering Tenant's Work prepared in conformity with the applicable provisions of this Work Letter (the "Draft Plans"). The Draft Plans shall contain sufficient information and detail to accurately describe Tenant's proposed design to Landlord and such other information as Landlord may reasonably request. Tenant shall be solely responsible for ensuring that the Tenant Work Plans and the Draft Plans satisfy Tenant's obligations for Tenant's Work.

2.2. Landlord Approval of Plans. Landlord shall notify Tenant in writing within ten (10) business days after receipt of the Draft Plans whether Landlord approves or objects to the Draft Plans and of the manner, if any, in which the Draft Plans are unacceptable. Landlord shall not object to any Draft Plans that satisfy the requirements set forth in Section 2.1. If Landlord objects to the Draft Plans, then Tenant shall revise the Draft Plans and cause Landlord's objections to be remedied in the revised Draft Plans. Tenant shall then resubmit the revised Draft Plans to Landlord for approval. Landlord's approval of or objection to revised Draft Plans and Tenant's correction of the same shall be in accordance with this Section 2.2, until Landlord has approved the Draft Plans in writing. The iteration of the Draft Plans that is approved by Landlord without objection shall be referred to herein as the "Approved Plans."

2.3. Completion of Tenant's Work. Tenant shall perform and complete Tenant's Work (a) in strict conformance with the Approved Plans, (b) otherwise in compliance with the Lease and (c) in accordance with Applicable Laws, Landlord's insurance carriers and the board of fire underwriters having jurisdiction over the Project and the Premises. Completion of Tenant's Work shall be subject to Landlord's reasonable approval.

2.4. Conditions to Performance of Tenant's Work. Prior to the commencement of Tenant's Work, Tenant shall submit to Landlord for Landlord's approval (which approval Landlord shall not unreasonably withhold) a list (the "Contractor List") of project managers, contractors and subcontractors that will perform Tenant's Work. Landlord shall give Tenant notice in writing of its approval or disapproval of the Contractor List with five (5) business days after Landlord's receipt of the same. If Landlord disapproves of one or more parties on the Contractor List, Tenant shall revise the Contractor List and resubmit the same to Landlord for Landlord's approval in accordance with the preceding two sentences. For all subcontracts in excess of One Hundred Thousand Dollars ($100,000), Tenant shall require its general contractor to provide Tenant with at least three (3) competitive bids.

2.5. Requests for Consent. Landlord shall respond to all requests for consents, approvals or directions made by Tenant pursuant to this Work Letter within five (5) business days following Landlord's receipt of such request. Landlord's failure to respond within such five (5) business day period shall be deemed approval by Landlord.

3. Tenant's Construction Obligations Shall Not Delay Commencement of the Term. Notwithstanding any Tenant Work to be performed by Tenant, the commencement of the Term and Tenant's obligation to pay Rent shall not, under any circumstance, be extended or delayed, except to the extent that completion of the Tenant Work is delayed caused by Force Majeure or by Landlord's failure to comply in a timely manner with its obligations under the Lease or this Work Letter. Tenant shall perform promptly such of its obligations contained in this Work Letter as are to be performed by it. Tenant shall also observe and perform all of its obligations under this Lease from the Term Commencement Date.

4. Completion of Tenant's Construction Obligations. Tenant, at its sole cost and expense (except for the Tenant Improvement Allowance), shall complete Tenant's Work described in this

Work Letter in all respects in accordance with the provisions of the Lease and this Work Letter. Tenant's Work shall be deemed completed at such time as Tenant, at its sole cost and expense (except for the Tenant Improvement Allowance) shall furnish to Landlord (a) evidence satisfactory to Landlord that (i) all Tenant's Work has been completed and paid for in full (which shall be evidenced by the architect's certificate of completion and the general contractor's and each Major Subcontractor's and Major Supplier's final waivers and releases of liens), (ii) all Tenant's Work has been accepted by Landlord, (iii) any and all liens related to Tenant's Work have either been discharged of record (by payment, bond, order of a court of competent jurisdiction or otherwise) or waived by the party filing such lien and (iv) no security interests relating to Tenant's Work are outstanding, (b) all certifications and approvals with respect to Tenant's Work that may be required from any Governmental Authority and any board of fire underwriters or similar body for the use and occupancy of the Premises, (c) certificates of insurance required by the Lease to be purchased and maintained by Tenant, (d) a certificate from Tenant's architect certifying that all work described in the Approved Plans is substantially complete, which certificate may be in the form of AIA Document 0704, and (e) complete drawing print sets and electronic CADD files on disc of all contract documents for work performed by their architect and engineers in relation to Tenant's Work. As used herein, the term "Major Subcontractor" shall mean any subcontractor who performs work in connection with Tenant's Work for compensation in excess of $10,000, and the term "Major Supplier" shall mean any material supplier who supplies materials in connection with Tenant's Work for a purchase price in excess of $25,000.

5. Insurance. Prior to commencing Tenant's Work, Tenant shall provide, or shall cause Tenant's contractors and subcontractors to provide, to Landlord, in addition to the insurance required of Tenant pursuant to the Lease, the following types of insurance in the following amounts, upon the following terms and conditions:

5.1. Builders' All-Risk Insurance. At all times during the period beginning with commencement of construction of Tenant's Work and ending with final completion of Tenant's Work, Tenant shall maintain, or cause to be maintained, casualty insurance in Builder's All-Risk Form, insuring the Landlord Parties and Tenant's contractors, as their interests may appear. Such policy shall, on a completed values basis for the full insurable value at all times, insure against loss or damage by fire, vandalism and malicious mischief and other such risks as are customarily covered by the so-called "broad form extended coverage endorsement" upon all Tenant's Work and the general contractor's and any subcontractors' machinery, tools and equipment, all while each forms a part of, or is contained in, Tenant's Work or any temporary structures on the Premises, or is adjacent thereto. Said Builder's All-Risk Insurance shall contain an express waiver of any right of subrogation by the insurer against Landlord and its affiliates, agents and employees.

5.2. Workers' Compensation. At all times during the period of construction of Tenant's Work, Tenant shall, or shall cause its contractors or subcontractors to, maintain statutory Workers' Compensation insurance as required by Applicable Laws.

6. Liability. Tenant assumes sole responsibility and liability for any and all injuries or the death of any persons, including Tenant's contractors and subcontractors and their respective employees, and for any and all damages to property caused by, resulting from or arising out of

any act or omission on the part of Tenant, Tenant's contractors or subcontractors, or their respective employees in the prosecution of Tenant's Work. Tenant agrees to indemnify, defend, protect and save free and harmless Landlord and Landlord's affiliates, agents and employees from and against all losses and expenses, including reasonable attorneys' fees and expenses, that Landlord may incur as the result of claims or lawsuits due to, because of, or arising out of any and all such injuries, death or damage, whether real or alleged, and Tenant and Tenant's contractors and subcontractors shall assume and defend at their sole cost and expense all such claims or lawsuits; provided, however, that nothing contained in this Work Letter shall be deemed to indemnify or otherwise hold Landlord harmless from or against liability caused by the gross negligence or willful misconduct of Landlord or any agent, contractor or employee of Landlord. Any deficiency in design or construction of Tenant's Work shall be solely the responsibility of Tenant, notwithstanding the fact that Landlord may have approved of the same in writing. All material and equipment furnished by Tenant as Tenant's Work shall be new or "like new" and Tenant's Work shall be performed in a first-class, workmanlike manner.

7. Tenant Improvement Allowance.

7.1. Application of Tenant Improvement Allowance and Additional TI Allowance. Landlord shall contribute the Tenant Improvement Allowance (and, if requested by Tenant, the Additional TI Allowance) toward the costs and expenses incurred in connection with the performance of Tenant's Work, in accordance with the terms and provisions of the Lease.

7.2. Approval of Budget for Tenant's Work. Notwithstanding anything to the contrary set forth elsewhere in this Work Letter or the Lease, Landlord shall not have any obligation to advance to Tenant any portion of the Tenant Improvement Allowance or the Additional TI Allowance until Landlord shall have approved in writing the budget for the Tenant's Work (the "Approved Budget"), which approval Landlord shall not unreasonably withhold. Tenant shall have the right to modify the Approved Budget at any time and from time to time, subject to Landlord's prior written approval, which approval Landlord shall not unreasonably withhold; thereafter the modified Approved Budget shall be deemed to be the "Approved Budget." Prior to Landlord's approval of the initial Approved Budget, Tenant shall pay all of the costs and expenses incurred in connection with Tenant's Work as they become due. Landlord shall not be obligated to reimburse Tenant for costs or expenses relating to Tenant's Work that exceed either (a) the amount of the Tenant Improvement Allowance (and, if requested by Tenant, the Additional TI Allowance), other than pursuant to Section 8.2, or (b) the Approved Budget, either on a line item or overall basis, provided, however, that Tenant shall have the right to apply cost savings in any one or more line items (not to exceed ten percent (10%) of any such line item) to any other line item(s).

7.3. Advance Requests. Upon submission by Tenant to Landlord of (a) a statement (an "Advance Request") setting forth the total amount requested, (b) a detailed summary of the Tenant's Work performed using AIA standard form Application for Payment (G 702) executed by the general contractor and by the architect), (c) lien releases from the general contractor and each Major Subcontractor and Major Supplier with respect to the portion of Tenant's Work corresponding to the Advance Request, then Landlord shall, within five (5) business days following receipt by Landlord of an Advance Request and the accompanying materials required by this Section 7.3, advance to Tenant the amount set forth in such Advance Request; provided, however, that, with respect to any Advance Requests subject to the limits set forth in Section 7.2, Landlord shall advance to Tenant the requested amount as limited by Section 7.2.

7.4. Application of the Tenant Improvement Allowance and Additional TI Allowance. Tenant may apply the Tenant Improvement Allowance (and, if requested by Tenant, the Additional TI Allowance) for the payment of construction and other costs (including, without limitation, standard laboratory improvements; finishes; building fixtures; building permits; project management fees; installation costs for Tenant's electrical, telephone and data cabling and wiring, and related connect charges; and architectural, engineering, design and consulting fees), in each case as reflected in the Approved Plans. In no event shall the Tenant Improvement Allowance or the Additional TI Allowance be applied to the purchase of any furniture, personal property or other non-building system equipment.

8. Changes. Any changes to Tenant's Work (each, a "Change") requested by Landlord or Tenant after Landlord approves the Approved Plans in writing shall be requested and instituted in accordance with the provisions of this Section 8 and shall be subject to the reasonable written approval of the other party.

8.1. Changes Requested by Tenant.

(a) Tenant may request Changes after Landlord approves the Approved Plans by notifying Landlord thereof in writing in substantially the same form as the AlA standard change order form (a "Tenant Change Order Request"), which Tenant Change Order Request shall detail the nature and extent of any requested Changes. Landlord agrees to either approve or disapprove with specific reasons for such disapproval within five (5) business days after receipt of such Change. If the nature of a Change requires revisions to the Approved Plans, then Tenant shall be solely responsible for the cost and expense of such revisions. Tenant Change Order Requests shall be signed by any Tenant's Authorized Representative.

(b) Landlord shall approve or reject any Tenant Change Order Requests in accordance with to the procedures established pursuant to Section 2. If Landlord does not approve in writing a Tenant Change Order Request, then such Tenant Change Order Request shall be deemed rejected by Landlord, and Tenant shall not be permitted to alter Tenant's Work as contemplated by such Tenant Change Order Request.

8.2. Changes Requested by Landlord. Landlord may request Changes after Landlord approves the Approved Plans by notifying Tenant thereof in writing landlord shall request such landlord changes by notifying tenant in writing in substantially the same form as the AIA standard change order form (a "Landlord Change Order Request"), which Landlord Change Order Request shall detail the nature and extent of any requested Changes. If the nature of a Change requires revisions to the Approved Plans, then Landlord shall be solely responsible for the cost and expense of such revisions. Landlord shall reimburse Tenant for all additional costs and expenses payable by Tenant to complete Tenant's Work due to a Landlord-requested Change in accordance with the payment provisions of this Work Letter. Notwithstanding the foregoing, Tenant shall not be required to make any Changes pursuant to this Section 8.2 that would have a material adverse impact on the construction schedule for Tenant's Work or on the layout, quality or functionality (for Tenant's purposes) of the Tenant Improvements.

8.3. Preparation of Estimates. Tenant shall, before proceeding with any Change, using commercially reasonable efforts, prepare as soon as is reasonably practicable (but in no event more than five (5) business days after delivering a Tenant Change Order Request to Landlord or receipt of a Landlord Change Order Request) an estimate of the increased costs or savings that would result from such Change, as well as an estimate of such Change's effects on the Schedule. Landlord shall have five (5) business days after receipt of such information from Tenant to (a) in the case of a Tenant Change Order Request, approve or reject such Tenant Change Order Request in writing, or (b) in the case of a Landlord Change Order Request, notify Tenant in writing of Landlord's decision either to proceed with or abandon the Landlord-requested Change.

9. Miscellaneous.

9.1. Headings, Etc. Where applicable in this Work Letter, the singular includes the plural and the masculine or neuter includes the masculine, feminine and neuter. The section headings of this Work Letter are not a part of this Work Letter and shall have no effect upon the construction or interpretation of any part hereof.

9.2. Time of the Essence. Time is of the essence with respect to the performance of every provision of this Work Letter in which time of performance is a factor.

9.3. Covenants. Each provision of this Work Letter performable by Tenant shall be deemed both a covenant and a condition.

9.4. Consent. Whenever consent or approval of either party is required, that party shall not unreasonably withhold, condition or delay such consent or approval, except as may be expressly set forth to the contrary.

9.5. Entire Agreement. The terms of this Work Letter are intended by the parties as a final expression of their agreement with respect to the terms as are included herein, and may not be contradicted by evidence of any prior or contemporaneous agreement, other than the Lease.

9.6. Invalid Provisions. Any provision of this Work Letter that shall prove to be invalid, void or illegal shall in no way affect, impair or invalidate any other provision hereof, and all other provisions of this Work Letter shall remain in full force and effect and shall be interpreted as if the invalid, void or illegal provision did not exist.

9.7. Construction. The language in all parts of this Work Letter shall be in all cases construed as a whole according to its fair meaning and not strictly for or against either Landlord or Tenant.

9.8. Assigns. Each of the covenants, conditions and agreements herein contained shall inure to the benefit of and shall apply to and be binding upon the parties hereto and their respective heirs; legatees; devisees; executors; administrators; and permitted successors, assigns, sublessees. Nothing in this Section 9.8 shall in any way alter the provisions of the Lease restricting assignment or subletting.

9.9. Authority. That individual or those individuals signing this Work Letter guarantee, warrant and represent that said individual or individuals have the power, authority and legal capacity to sign this Work Letter on behalf of and to bind all entities, corporations, partnerships, limited liability companies, joint venturers or other organizations and entities on whose behalf said individual or individuals have signed.

9.10. Counterparts. This Work Letter may be executed in one or more counterparts, each of which, when taken together, shall constitute one and the same document.

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IN WITNESS WHEREOF, Landlord and Tenant have executed this Work Letter to be effective on the date first above written.

LANDLORD:

BMR-BAYSHORE BOULEYARD LLC,
a Delaware limited liability company

By: _____
Name: Gary A. Kreitzer
Title: Executive Vice President

TENANT:

EXPRESSION DIAGNOSTICS, INC.,
a Delaware corporation

By: _____
Name: _____
Title: _____

Exhibit 10.27

CONSENT TO SUBLEASE

This CONSENT TO SUBLEASE (this "Consent") is entered into as of this 14th day of January, 2013, by and between BMR-BAYSHORE BOULEVARD LP, a Delaware limited partnership ("Landlord"), as successor in interest to BMR-Bayshore Boulevard LLC, XDX, INC., a Delaware corporation ("Tenant"), and ATARA BIOTHERAPEUTICS, INC., a Delaware corporation ("Subtenant").

RECITALS

A. WHEREAS, Landlord and Tenant are parties to that certain Lease dated as of April 27, 2006 (as the same may have been amended, amended and restated, supplemented or otherwise modified from time to time, the "Master Lease"), whereby Tenant leases certain premises (the "Premises") from Landlord at 3260 Bayshore Boulevard, Brisbane, California (the "Building"); and

B. WHEREAS, Tenant has applied to Landlord for its consent to that certain Sublease Agreement dated as of January 10, 2013 (the "Sublease"), by and between Tenant and Subtenant, whereby Tenant subleases its interest in a portion of the Premises (such portion, the "Subleased Premises") to Subtenant.

AGREEMENT

NOW, THEREFORE, Landlord hereby consents to the Sublease, subject to and upon the following terms and conditions, to each of which Tenant, Subtenant and Landlord expressly agree:

1. Nothing contained in this Consent shall either:

(a) operate as a consent to or approval by Landlord of any of the provisions of the Sublease or as a representation or warranty by Landlord, and Landlord shall not be bound or estopped in any way by the provisions of the Sublease; or

(b) be construed to modify, waive or affect any of the provisions, covenants or conditions of, or any rights or remedies of Landlord under, the Master Lease. In the case of any conflict between the provisions of this Consent and those of the Sublease, the provisions of this Consent shall prevail.

2. Tenant expressly assumes and agrees that during the term of the Sublease, Tenant shall perform and comply with each and every obligation of Tenant under the Master Lease. Subtenant expressly assumes and agrees that during the term of the Sublease, Subtenant shall perform and comply with each and every obligation of Tenant under the Master Lease related to the Subleased Premises to the extent Subtenant is required to perform or comply with such obligations pursuant to the Sublease. The terms of this Section shall be subject to the terms of Section 6 below.

3. Neither the Sublease nor this Consent shall release or discharge Tenant from any liability under the Master Lease, and Tenant shall remain liable and responsible for the full performance of all of the provisions, covenants and conditions set forth in the Master Lease. The acceptance of rent by Landlord from Subtenant or from any other person shall not be deemed a waiver by Landlord of any provisions of the Master Lease. Tenant and Subtenant understand and represent that by entering into the Sublease, Landlord's rights, remedies and liabilities under the Master Lease have not in any way been modified.

4. Tenant and Subtenant warrant that the attached Sublease represents the entire agreement between them. Subtenant further warrants that there was no compensation or consideration paid to either party as a condition of this Consent or the Sublease other than as stated herein or therein.

5. The Sublease shall be subject and subordinate at all times to the Master Lease and all of its provisions, covenants and conditions. In case of a conflict, the provisions of the Master Lease shall prevail.

6. This Consent shall not constitute consent to any subsequent subletting or assignment of the Master Lease, the Sublease or the Premises. This Consent may not be assigned by Tenant or Subtenant in whole or in part. Any amendment or modification to the Sublease or the Subleased Premises (including, without limitation, expanding the Subleased Premises) shall require prior written consent from Landlord, which consent shall be governed by the applicable provisions of the Master Lease.

7. Tenant shall protect, defend, indemnify, release, save and hold Landlord and each of Landlord's officers, directors, affiliates, employees, agents, consultants and lenders (each, an "Indemnified Party") harmless from and against any and all Losses (as defined below) imposed upon or incurred by or asserted against an Indemnified Party directly or indirectly arising out of or in any way relating to Subtenant's failure to perform or comply with any of Tenant's or Subtenant's obligations under the Sublease or this Consent. As used herein, the term "Losses" includes any and all demands, claims, liabilities, losses, costs, expenses, actions, causes of action, damages, diminutions in value, fines, penalties, charges, fees, expenses, judgments, awards, amounts paid in settlement, punitive damages and foreseeable and unforeseeable consequential damages of whatever kind or nature, suits or judgments, and all reasonable expenses (including reasonable attorneys' fees, charges and disbursements, regardless of whether the applicable demand, claim, action, cause of action or suit is voluntarily withdrawn or dismissed) incurred in investigating or resisting the same. Subtenant shall protect, defend, indemnify, release, save and hold the Indemnified Parties harmless from and against any and all Losses imposed upon or incurred by or asserted against an Indemnified Party to the extent arising from a breach of Subtenant's obligations under the Sublease or this Consent.

8. In the event of any default by Subtenant under the Master Lease, Landlord may proceed directly against any or all of Tenant, Subtenant, any guarantors or anyone else to the extent liable with respect to such default under the Master Lease without first exhausting Landlord's remedies against any other person or entity liable therefor to Landlord.

9. In the event that Tenant defaults in its obligations under the Master Lease or in the event that the Master Lease is otherwise terminated prior to its natural expiration, Landlord may, at its option and without being obligated to do so, require Subtenant to attorn to Landlord with respect to the Subleased Premises. Upon Landlord's notice to Subtenant, (a) Subtenant shall thereafter make all payments otherwise due Tenant directly to Landlord, which payments shall be received by Landlord without any liability being incurred by Landlord (and without any liability on account of such payment being incurred by Tenant), except to credit such payment against amounts due by Tenant under the Lease and (b) within ten (10) days after such notice, Tenant or Subtenant shall deposit with Landlord the entire Security Deposit (as defined in the Sublease), and replenish such Security Deposit from time to time, as necessary to maintain the amount required under the Sublease. If Landlord elects to require Subtenant to so attorn, then Landlord shall undertake the obligations of Tenant under the Sublease with respect to the Subleased Premises from the time of the exercise of Landlord's option under this Section until termination of the Sublease; provided, however, that Landlord shall not be liable for any prepaid rents or any security deposit paid by Subtenant to Tenant (except to the extent such security deposit is actually received by Landlord from Tenant), nor, for the time period preceding such attornment, shall Landlord be liable for any other defaults of Tenant under the Sublease.

10. If any party hereto commences a demand, claim, action, cause of action or suit against another party(ies) arising out of or in connection with this Lease, then the substantially prevailing party(ies) shall be reimbursed by the other party(ies) for all reasonable costs and expenses, including reasonable attorneys' fees and expenses, incurred by the substantially prevailing party(ies) in such action or proceeding and in any appeal in connection therewith (regardless of whether the applicable demand, claim, action, cause of action or suit is voluntarily withdrawn or dismissed).

11. This Consent (a) shall be construed in accordance with the laws of the State of California, without regard to its conflict of law principles, (b) contains the entire agreement of the parties hereto with respect to the subject matter hereof and (c) may not be changed or terminated orally or by any course of conduct.

12. Tenant represents and warrants that it has dealt with no broker, agent or other person in connection with this transaction and that no broker, agent or other person brought about this transaction, other than Cooper/Brady Partnership d/b/a CresaPartners (with an address of 5550 South Winchester Boulevard, San Jose, California), and Tenant agrees to indemnify and hold Landlord and Subtenant harmless from and against any claims by this or any other broker, agent or other person claiming a commission or other form of compensation by virtue of having dealt with Tenant with regard to the Sublease. The provisions of this Section shall survive the expiration or earlier termination of this Consent or the Master Lease.

13. If any terms or provisions of the Master Lease or this Consent, or the application thereof to any person or circumstance, shall to any extent be held to be invalid or unenforceable, then the remainder of the Master Lease, this Consent or the application of such term or provision to persons or circumstances other than those as to which they are held invalid or unenforceable shall not be affected thereby, and each term and provision of the Master Lease and this Consent shall be valid and enforceable to the fullest extent permitted by law. Landlord's rights and remedies provided for in the Master Lease, this Consent or by law shall, to the extent permitted by law, be cumulative.

14. This Consent may be executed in one or more counterparts, each of which, when taken together, shall constitute one and the same document.

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IN WITNESS WHEREOF, Tenant and Subtenant have affixed their respective signatures hereto as evidence of understanding of and agreement to the above, and Landlord has affixed its signature hereto to convey its consent to the Sublease.

LANDLORD:

BMR-BAYSHORE BOULEVARD LP,
a Delaware limited partnership

By: /s/ Jonathan P. Klassen
Name: Jonathan P. Klassen
Title: Vice President, General Counsel

TENANT:

XDX, INC.,
a Delaware corporation

By: /s/ Peter Maag
Name: Peter Maag
Title: CEO

SUBTENANT:

ATARA BIOTHERAPEUTICS, INC.,
a Delaware corporation

By: /s/ Isaac Ciechanover
Name: Isaac Ciechanover
Title: CEO

FIRST AMENDMENT TO LEASE

THIS FIRST AMENDMENT TO LEASE (this "Amendment") is entered into as of this 10th day of November, 2010 (the "Execution Date"), by and between BMR-BAYSHORE BOULEVARD LLC, a Delaware limited liability company ("Landlord"), and XDX, INC., a Delaware corporation, (formerly known as Expression Diagnostics, Inc.) ("Tenant").

RECITALS

A. WHEREAS, Landlord and Tenant entered into that certain Lease dated as of April 27, 2006, as amended by this Amendment, and as the same may have been otherwise amended, supplemented or modified from time to time, the "Lease"), whereby Tenant leases certain premises (the "Premises") from Landlord at 3260 Bayshore Boulevard in Brisbane, California (the "Building");

B. WHEREAS, Landlord and Tenant desire to extend the Term of the Lease; and

C. WHEREAS, Landlord and Tenant desire to amend the Basic Annual Rent; and

D. WHEREAS, Landlord and Tenant desire to agree upon certain terms in the event the Additional Premises (as defined below) is delivered to Tenant; and

E. WHEREAS, Landlord and Tenant desire to modify and amend the Lease only in the respects and on the conditions hereinafter stated.

AGREEMENT

NOW, THEREFORE, Landlord and Tenant, in consideration of the mutual promises contained herein and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and intending to be legally bound, agree as follows:

1. Definitions. For purposes of this Amendment, capitalized terms shall have the meanings ascribed to them in the Lease unless otherwise defined herein.

2. Term Extension. The term of the Lease shall be extended for 86 months (the "Extension Term"), ending on December 31, 2020. The definition of "Term Expiration Date" as set forth in Section 4.2 of the Lease shall be deleted in its entirety and shall be replaced with December 31, 2020.

3. Additional Premises. Landlord shall use commercially reasonable efforts to expand the Premises to include an additional fifteen thousand four hundred ten (15,410) square feet of Rentable Area located on the first (1st) floor, as shown on Exhibit A attached hereto (the "Additional Premises") on July 1, 2012 (the "Additional Premises Delivery Date"). In the event Landlord determines the Additional Premises will be ready for delivery to Tenant in the Required Condition on the Additional Premises Delivery Date, within ten (10) business days prior to the Additional Premises Delivery Date, Landlord and Tenant shall enter into a written amendment to the Lease, which amendment shall provide, unless otherwise agreed in writing, (a) that the commencement date of the Additional Premises shall be the Additional Premises

Delivery Date (the "Additional Premises Commencement Date"), (b) that, as of the Additional Premises Commencement Date, the Premises under the Lease shall be increased to include the Additional Premises for a total of sixty-one thousand four hundred forty-four (61,444) square feet of Rentable Area (together, the Premises and the Additional Premises shall be referred to hereinafter as the "Total Premises"), (c) the new Basic Annual Rent applicable to the Total Premises, which shall commence on the Additional Premises Commencement Date and shall be as further described in Section 4.2 of this Amendment, (d) Tenant's new Pro Rata Share of Operating Expenses as of the Additional Premises Commencement Date, which Pro Rata Share shall equal one hundred percent (100%) of the Building and thirty-three and 51/100 percent (33.51%) of the Project and (e) that, in addition to the parking which Tenant is entitled to under the terms of the Lease with respect to the original Premises, Tenant, for so long as Tenant leases the Additional Premises, shall have a non-exclusive license to use the parking facilities serving the Building in common on an unreserved basis with other tenants of the Building and the Project at a ratio of 3.3 parking spaces per 1,000 rentable square feet of Additional Premises, which amounts to fifty-one (51) additional parking spaces, which number shall include three (3) additional Reserved Spaces. In the event the Additional Premises is not ready for delivery to Tenant in the Required Condition on the Additional Premises Delivery Date, then (x) this Amendment and the Lease shall not be void or voidable, (y) Landlord shall not be liable to Tenant for any loss or damage resulting therefrom and (z) the new Basic Annual Rent applicable to the Premises shall be as further described in Section 4.3 of this Amendment.

4. Basic Annual Rent.

4.1 From January 1, 2011 through June 30, 2012, the Basic Annual Rent for the Premises shall be One Dollar and 75/100 ($1.75) per rentable square foot per month on a triple net basis.

4.2 In the event Landlord delivers the Additional Premises in the Required Condition on the Additional Premises Delivery Date, the Basic Annual Rent set forth in the table below shall apply to the Total Premises throughout the remainder of the initial Term and the Extension Term.

Months	**Lease Rate/Per Month**
July 1, 2012 - December 31, 2013	$ 1.85 NNN
January 1, 2014 - December 31, 2014	$ 2.15 NNN
January 1, 2015 - December 31, 2015	$ 2.25 NNN
January 1, 2016 - December 31, 2016	$ 2.35 NNN
January 1, 2017 - December 31, 2017	$ 2.45 NNN
January 1, 2018 - December 31, 2018	$ 2.50 NNN
January 1, 2019 - December 31, 2019	$ 2.55 NNN
January 1, 2020 - December 31, 2020	$ 2.57 NNN

4.3 In the event Landlord does not deliver the Additional Premises in the Required Condition on the Additional Premises Delivery Date, the Basic Annual Rent set forth in the table below shall apply to the Premises throughout the remainder of the initial Term and the Extension Term.

Months	Lease Rate/Per Month
July 1, 2012 - December 31, 2013	$ 1.85 NNN
January 1, 2014 - December 31, 2014	$ 2.05 NNN
January 1, 2015 - December 31, 2015	$ 2.15 NNN
January 1, 2016 - December 31, 2016	$ 2.25 NNN
January 1, 2017 - December 31, 2017	$ 2.35 NNN
January 1, 2018 - December 31, 2018	$ 2.40 NNN
January 1, 2019 - December 31, 2019	$ 2.45 NNN
January 1, 2020 - December 31, 2020	$ 2.50 NNN

5. Security Deposit. Upon the full execution and delivery of this Amendment, Tenant may reduce the amount of the Letter of Credit to Ninety Thousand Dollars ($90,000).

6. Condition of Premises. Tenant acknowledges that (a) it is in possession of and is fully familiar with the condition of the Premises and, notwithstanding anything contained in the Lease to the contrary, agrees to take the same in its condition "as is" as of the first day of the Extension Term, and (b) Landlord shall have no obligation to alter, repair or otherwise prepare the Premises for Tenant's continued occupancy for the Extension Term or to pay for any improvements to the Premises, except as may be expressly provided in the Lease. In the event Landlord delivers the Additional Premises, Landlord agrees that the existing laboratory casework (as shown on Exhibit A attached hereto), flooring, ceiling, HVAC and other Building systems serving the Additional Premises shall be in good working order and the Additional Premises shall be vacant, in broom clean condition, and, to Landlord's knowledge, the Additional Premises shall be decommissioned pursuant to and otherwise in compliance with Applicable Laws (the "Required Condition"). Tenant's acceptance of the Additional Premises shall be conclusive proof that the Additional Premises was delivered in the Required Condition.

7. Right of First Refusal. In the event the Additional Premises is not delivered to Tenant by the Additional Premises Delivery Date, for so long as Tenant still leases and occupies the entire Premises, Tenant shall have a right of first refusal ("ROFR") as to any rentable premises in the Building for which Landlord is seeking a tenant ("Available ROFR Premises"); provided, however, that in no event shall Landlord be required to lease any Available ROFR Premises to Tenant for any period past the date on which this Lease expires or is terminated pursuant to its terms. In the event Landlord intends to lease Available ROFR Premises, Landlord shall provide written notice thereof to Tenant (the "Notice of Offer"), specifying the terms and conditions of a proposed lease to Tenant of the Available ROFR Premises.

7.1 Within ten (10) days following its receipt of a Notice of Offer, Tenant shall advise Landlord in writing whether Tenant elects to lease all (not just a portion) of the Available ROFR Premises on the terms and conditions set forth in the Notice of Offer. If Tenant fails to notify Landlord of Tenant's election within said ten (10) day period, then Tenant shall be deemed to have elected not to lease the Available ROFR Premises.

7.2 If Tenant timely notifies Landlord that Tenant elects to lease the Available ROFR Premises on the terms and conditions set forth in the Notice of Offer, then Landlord shall lease the Available ROFR Premises to Tenant upon the terms and conditions set forth in the Notice of Offer.

7.3 If Tenant notifies Landlord that Tenant elects not to lease the Available ROFR Premises on the terms and conditions set forth in the Notice of Offer, or if Tenant fails to notify Landlord of Tenant's election within the ten (10)-day period described above, then Landlord shall have the right to consummate the lease of the Available ROFR Premises on the same terms as set forth in the Notice of Offer following Tenant's election (or deemed election) not to lease the Available ROFR Premises.

7.4 Notwithstanding anything in this Article to the contrary, Tenant shall not exercise the ROFR during such period of time that Tenant is in default under any provision of this Lease. Any attempted exercise of the ROFR during a period of time in which Tenant is so in default shall be void and of no effect. In addition, Tenant shall not be entitled to exercise the ROFR if Landlord has given Tenant two (2) or more notices of default under this Lease, whether or not the defaults are cured, during the twelve (12) month period prior to the date on which Tenant seeks to exercise the ROFR.

7.5 Notwithstanding anything in this Lease to the contrary, Tenant shall not assign or transfer the ROFR, either separately or in conjunction with an assignment or transfer of Tenant's interest in the Lease, without Landlord's prior written consent, which consent Landlord may withhold in its sole and absolute discretion; provided, however, that Landlord's consent shall not be required for Tenant's assignment of the ROFR in connection with an Allowable Transfer.

7.6 If Tenant exercises the ROFR, Landlord does not guarantee that the Available ROFR Premises will be available on the anticipated commencement date for the Lease as to such Premises due to a holdover by the then-existing occupants of the Available ROFR Premises or for any other reason beyond Landlord's reasonable control.

8. Termination Right. The termination right set forth in Section 3.3 of the Lease shall be deleted in its entirety and shall have no further force or effect.

9. No encumbrances. As of the Execution Date, the Property is not encumbered by any deed of trust or mortgage or subject to any ground lease. Notwithstanding the foregoing, this Section 9 shall not prevent Landlord from encumbering or ground leasing the Property at any time in the future.

10. Broker. Tenant represents and warrants that it has not dealt with any broker or agent in the negotiation for or the obtaining of this Amendment, other than CresaPartners ("Broker"), and agrees to indemnify, defend and hold Landlord harmless from any and all cost or liability for compensation claimed by any such broker or agent, other than Broker, employed or engaged by it or claiming to have been employed or engaged by it. Broker is entitled to a leasing commission in connection with the making of this Amendment, and Landlord shall pay such commission to Broker pursuant to a separate agreement between Landlord and Broker.

11. No Default. Tenant represents, warrants and covenants that, to the best of Tenant's knowledge, Tenant is not in default of any of its respective obligations under the Lease and no event has occurred that, with the passage of time or the giving of notice (or both) would constitute a default by Tenant thereunder. Landlord represents, warrants and covenants that, to the best of Landlord's knowledge, Landlord is not in default of any of its respective obligations under the Lease and no event has occurred that, with the passage of time or the giving of notice (or both) would constitute a default by or Landlord thereunder.

12. Effect of Amendment. Except as modified by this Amendment, the Lease and all the covenants, agreements, terms, provisions and conditions thereof shall remain in full force and effect and are hereby ratified and affirmed. The covenants, agreements, terms, provisions and conditions contained in this Amendment shall bind and inure to the benefit of the parties hereto and their respective successors and, except as otherwise provided in the Lease, their respective assigns. In the event of any conflict between the terms contained in this Amendment and the Lease, the terms herein contained shall supersede and control the obligations and liabilities of the parties. From and after the date hereof, the term "Lease" as used in the Lease shall mean the Lease, as modified by this Amendment.

13. Miscellaneous. This Amendment becomes effective only upon execution and delivery hereof by Landlord and Tenant. The captions of the paragraphs and subparagraphs in this Amendment are inserted and included solely for convenience and shall not be considered or given any effect in construing the provisions hereof. All exhibits hereto are incorporated herein by reference.

14. Counterparts. This Amendment may be executed in one or more counterparts, each of which, when taken together, shall constitute one and the same document.

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IN WITNESS WHEREOF, Landlord and Tenant have hereunto set their hands as of the date and year first above written, and acknowledge that they possess the requisite authority to enter into this transaction and to execute this Amendment.

LANDLORD:

BMR-BAYSHORE BOULEVARD LLC,
a Delaware limited liability company

By: /s/ Greg Lubushkin
Name: Greg Lubushkin
Title: Chief Financial Officer

TENANT:

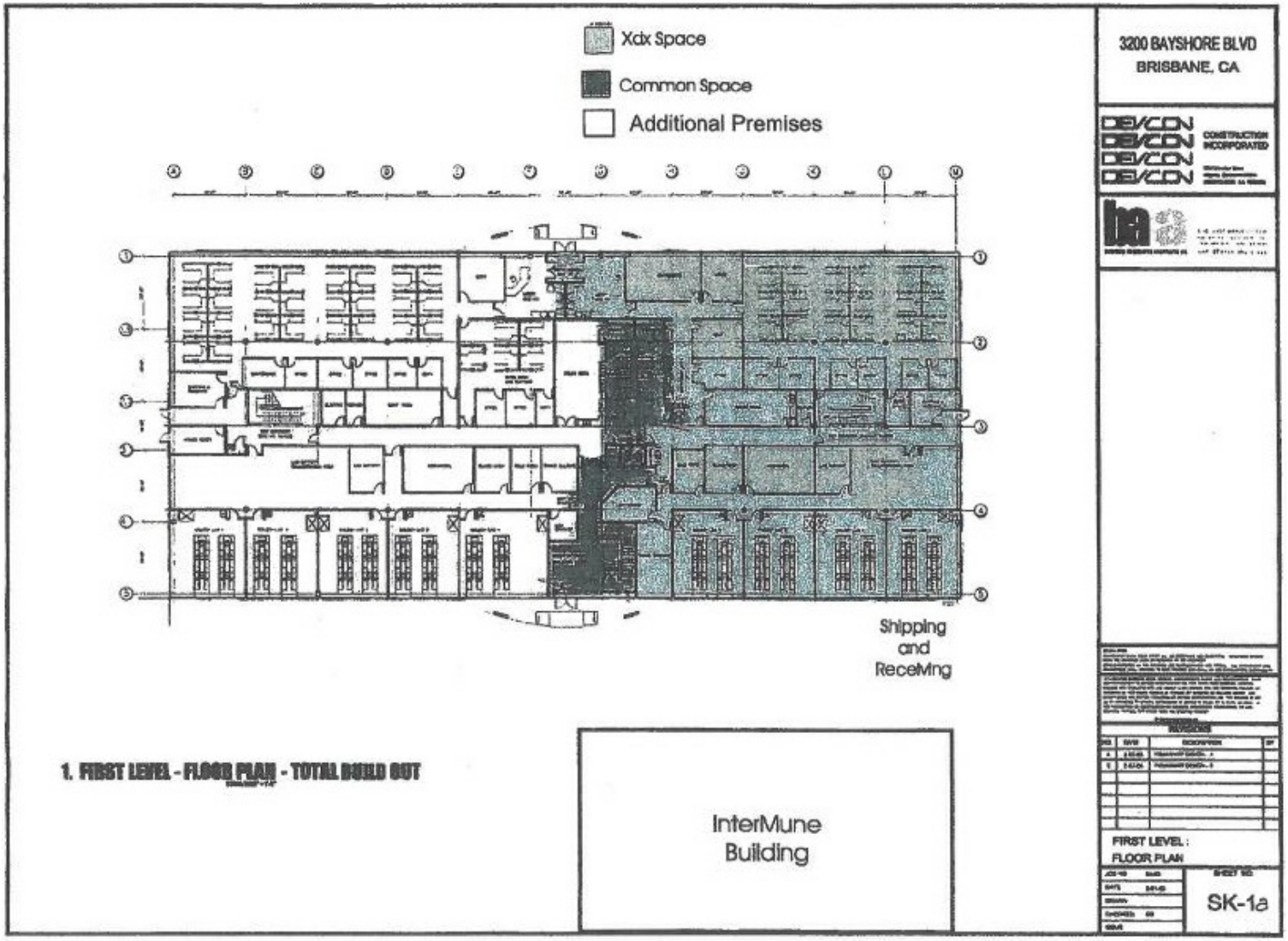
XDX, INC.,
a Delaware corporation

By: /s/ Jean Viret
Name: Jean Viret
Title: Chief Financial Officer

EXHIBIT A

ADDITIONAL PREMISES

Exhibit A



1. FIRST LEVEL - FLOOR PLAN - TOTAL BUILD OUT

Exhibit 21.1

SUBSIDIARIES OF ATARA BIOTHERAPEUTICS, INC.

Subsidiary Name	Jurisdiction of Incorporation
Nina Biotherapeutics, Inc.	Delaware
Santa Maria Biotherapeutics, Inc.	Delaware
Pinta Biotherapeutics, Inc.	Delaware

Exhibit 23.2

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the use in this Registration Statement on Form S-1 of our report dated April 9, 2014 relating to the combined financial statements of Atara Biotherapeutics, Inc., Nina Biotherapeutics, Inc., Pinta Biotherapeutics, Inc. and Santa Maria Biotherapeutics, Inc. (collectively, the "Company") as of and for the year ended December 31, 2013, as of December 31, 2012 and for the period ended December 31, 2012, and for the period from August 22, 2012 (inception) to December 31, 2013 (which report expresses an unqualified opinion on the combined financial statements and includes an explanatory paragraph referring to the Company being in the development stage as of December 31, 2013) appearing in the Prospectus, which is part of this Registration Statement.

We also consent to the reference to us under the heading "Experts" in such Prospectus.

/s/ Deloitte & Touche LLP

San Jose, California
June 20, 2014