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As filed with the Securities and Exchange Commission on September 26, 2014.
Registration No. 333-196936

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

AMENDMENT NO. 2
TO
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:

Kenneth L. Guernsey **Jodie M. Bourdet** **Cooley LLP** **101 California Street, 5th Floor** **San Francisco, California 94111** **(415) 693-2000**	**Bruce K. Dallas** **Davis Polk & Wardwell LLP** **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 ☐

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 September 26, 2014.

5,000,000 Shares

Common Stock

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

We are selling 5,000,000 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 $. Our common stock has been approved for listing on The Nasdaq Global Select 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" beginning 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 145 for additional information regarding total underwriting compensation.

We have granted the underwriters an option to purchase up to an additional 750,000 shares at the initial public offering price less the underwriting discount.

Certain of our existing stockholders and their affiliated entities have indicated an interest in purchasing an aggregate of approximately $ million of shares of our common stock in this offering at the initial public offering price. However, because indications of interest are not binding agreements or commitments to purchase, any of these stockholders may determine to purchase more, less or no shares in this offering, or the underwriters may determine to sell more, less or no shares in this offering to any of these stockholders.

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 product candidates in preclinical development and an exclusive option to license several others through an agreement with Memorial Sloan Kettering Cancer Center, or MSK. 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.
- ***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.
- ***Dosing schedule*** — PINTA 745 is dosed weekly, which conveniently aligns with dialysis treatment schedules.

Our ongoing US-based Phase 2 trial is a 48-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 product candidates 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 therapeutics 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 product candidates 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	5,000,000 shares
Common stock to be outstanding after this offering	19,403,128 shares
Option to purchase additional shares of common stock	750,000 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 clinical development and manufacturing of STM 434, (3) to continue to advance and expand our preclinical research pipeline and (4) for working capital and for other general corporate purposes, which includes the cost of operating as a public company and the cost of acquiring, evaluating and potentially exercising our exclusive option to license the MSK T-cell therapies and potentially acquiring or licensing other product candidates, 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 purchase by certain existing stockholders	Certain of our existing stockholders and their affiliated entities have indicated an interest in purchasing an aggregate of approximately $ million of shares of our common stock in this offering at the initial public offering price. However, because indications of interest are not binding agreements or commitments to purchase, any of these stockholders may determine to purchase more, less or no shares in this offering, or the underwriters may determine to sell more, less or no shares in this offering to any of these stockholders.
Nasdaq Global Select Market symbol	"ATRA"

The number of shares of common stock to be outstanding after this offering is based on 14,403,128 shares of our common stock (including preferred stock on an as-converted basis) outstanding as of June 30, 2014, on a pro forma basis giving effect to the recapitalization, and excludes the following:

- 893,651 shares of common stock issuable upon settlement of restricted stock units, or RSUs, outstanding as of June 30, 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;
- 6,000 shares of common stock issuable upon settlement of RSUs issued after June 30, 2014 under our 2014 Equity Incentive Plan, or 2014 Plan;
- 554,959 shares of common stock issuable upon the exercise of options granted after June 30, 2014 under our 2014 Plan, 209,959 of which have an exercise price of $12.55 per share, and 345,000 of which have an exercise price per share equal to the initial public offering price in this offering;
- 1,802,313 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;
- 230,769 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; and
- 59,761 shares of common stock issued in September 2014 in connection with the execution of our exclusive option agreement with MSK.

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

- the completion of our recapitalization;
- a 1.3-for-1 reverse split of our outstanding common stock and preferred stock effective on July 9, 2014;
- the automatic conversion of all outstanding shares of our preferred stock as of June 30, 2014 into an aggregate of 12,298,515 shares of common stock upon 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; and
- no exercise of the underwriters' option to purchase up to an additional 750,000 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 six months ended June 30, 2013 and 2014 and our consolidated balance sheet data as of June 30, 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	Six months ended June 30, 2013	Six months ended June 30, 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	$ 923	$ 5,091
Research and development costs paid to Amgen	—	553	—	1,066
In-process research and development acquired from Amgen	3,018	—	—	—
General and administrative	834	3,756	1,724	5,454
Total expense	4,093	8,615	2,647	11,611
Loss from operations	(4,093)	(8,615)	(2,647)	(11,611)
Interest income	—	12	6	29
Loss before provision for income taxes	(4,093)	(8,603)	(2,641)	(11,582)
Provision (benefit) for income taxes	17	170	40	(22)
Net loss and comprehensive loss	$ (4,110)	$ (8,773)	$ (2,681)	$ (11,560)
Basic and diluted net loss per common share	$ (5.60)	$ (9.08)	$ (3.06)	$ (8.89)
Weighted-average common shares outstanding used to compute basic and diluted net loss per common share	733,294	965,825	876,814	1,300,393
Pro forma net loss per common share(1)		$ (1.28)		$ (0.85)
Weighted-average common shares outstanding used to compute pro forma net loss per share		6,870,743		13,677,230

(1) See Note 2 to our combined and consolidated financial statements for an explanation of the calculations of pro forma net loss per common share.

	As of June 30, 2014		
	Actual	Pro Forma(1)	Pro Forma As Adjusted(2)(3)
		(in thousands)	
Consolidated Balance Sheets Data:			
Cash and cash equivalents	$ 31,779	$ 31,779	$
Short-term available-for-sale investments	24,719	24,719	24,719
Working capital	54,984	54,984	
Total assets	58,503	58,503	
Convertible preferred stock	74,572	—	—
Accumulated deficit	(24,443)	(28,255)	(28,255)
Total stockholders' (deficit) equity	(18,353)	56,223	

(1) The pro forma column reflects the automatic conversion of all outstanding shares of our preferred stock into 12,298,515 shares of our common stock upon the closing of this offering and the vesting of 63,076 shares of restricted common stock that will vest upon the closing of this offering.

(2) The pro forma as adjusted column further reflects the sale of 5,000,000 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 $4.7 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. 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 six months ended June 30, 2014, we reported a net loss of $8.8 million and $11.6 million, respectively, and we had an accumulated deficit of $24.4 million at June 30, 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 June 30, 2014, our cash and cash equivalents and short-term investments were $56.5 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 to in-license future product candidates or technologies, including the exercise of our option to license certain T-cell therapies from MSK;
- 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 second quarter of 2017. 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 licensed 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;
- interim results or data that are ambiguous or negative or are inconsistent with earlier results or data;
- 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 have also relied on studies previously conducted by Amgen. 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 or data in a timely manner or may fail to perform at all. For example, on July 22, 2014 we became aware of a draft report for a preclinical study conducted with STM 217, a compound similar to STM 434 that we also licensed from Amgen. Results from this study led to the amendment of our planned clinical trial for STM 434. Although we believe we now have all data previously generated by Amgen for our licensed product candidates, other data from studies previously conducted by Amgen may emerge in the future. 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 2035 for US patents and patent applications, if issued, and from 2023 to 2035 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 corresponding non-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 for sarcopenia; Acceleron Pharma, Inc., which is developing ACE-083, a modified cysteine knot ligand trap of the TGF-beta superfamily, for diseases in which improved muscle strength may provide a clinical benefit, such as inclusion body myositis and certain forms of muscular dystrophy; 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 September 15, 2014, we had 15 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 72.9% of our outstanding voting stock, or % of our outstanding voting stock if certain of our current stockholders purchase all of the approximately $ million of shares of common stock they have indicated an interest in purchasing in this offering, 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, assuming no exercise of the underwriters' over-allotment option and 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 50% of the total amount invested by stockholders since our inception, but will own, as a result of such investment, only approximately 26% 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 Select 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 19,403,128 shares of common stock based on the number of shares outstanding as of June 30, 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, 14,403,128 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 14,133,898 shares of our common stock as of June 30, 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 product candidates, if approved for commercial use;
- estimates of our expenses, capital requirements and need for additional financing;
- our expectation that our existing capital resources and net proceeds from this offering will be sufficient to 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 through at least the second quarter of 2017;
- 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 $4.7 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 June 30, 2014, we had cash and cash equivalents and short-term investments of $56.5 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 $37.1 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 $25.7 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 April 2017;
- approximately $13.1 million to expand and advance our preclinical research pipeline; and
- the remainder for working capital and for other general corporate purposes, which includes the cost of operating as a public company and the cost of acquiring, evaluating and potentially exercising our exclusive option to license the MSK T-cell therapies and potentially acquiring or licensing other product candidates, 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 June 30, 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 second quarter of 2017. 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 June 30, 2014:

- on an actual basis;
- on a pro forma basis, giving effect to the vesting of 63,076 shares of restricted common stock and the automatic conversion of all outstanding shares of preferred stock as of June 30, 2014 into 12,298,515 shares of our common stock upon 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 5,000,000 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 June 30, 2014		
	Actual	Pro Forma	Pro Forma As Adjusted[1]
	(in thousands, except share and per share data)		
Cash and cash equivalents	$ 31,779	$ 31,779	$
Short-term available-for-sale investments	24,719	24,719	24,719
	$ 56,498	$ 56,498	$
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:			
Common stock, $0.0001 par value, 1,982,162 shares issued and outstanding, actual; 13,739,907 shares issued and outstanding, pro forma; 18,739,907 shares issued and outstanding pro forma as adjusted	—	1	2
Additional paid-in capital	6,090	84,477	
Accumulated deficit	(24,443)	(28,255)	(28,255)
Total stockholders’ equity (deficit)	(18,353)	56,223	
Total capitalization	$ 56,219	$ 56,223	$

(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 $4.7 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 pro forma outstanding share information in the table above is based on 13,739,907 shares of our common stock (including preferred stock on an as-converted basis and 63,076 shares of restricted common stock that will vest upon the closing of this offering) outstanding as of June 30, 2014 and excludes the following:

- 893,651 shares of common stock issuable upon settlement of RSUs outstanding as of June 30, 2014 pursuant to our 2012 Plans;
- 6,000 shares of common stock issuable upon settlement of RSUs issued after June 30, 2014 under our 2014 Plan;
- 554,959 shares of common stock issuable upon the exercise of options granted after June 30, 2014 under our 2014 Plan, 209,959 of which have an exercise price of $12.55 per share, and 345,000 of which have an exercise price per share equal to the initial public offering price in this offering;
- 1,802,313 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;
- 230,769 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;
- 726,298 shares of restricted common stock, which remained subject to vesting as of June 30, 2014; and
- 59,761 shares of common stock issued in September 2014 in connection with the execution of our exclusive option agreement with MSK.

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 deficit as of June 30, 2014 was approximately $18.4 million, or $13.32 per share of common stock. Our historical net tangible deficit is the amount of our total tangible assets less our liabilities and preferred stock that is not included within equity. Historical net tangible deficit per share is our historical net tangible deficit divided by 1,378,316 (the number of shares of common stock outstanding as of June 30, 2014). The pro forma net tangible book value of our common stock as of June 30, 2014, was $56.2 million, or $4.09 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 June 30, 2014 into 12,298,515 shares of common stock and the vesting of 63,076 shares of restricted common stock upon the closing of this offering.

After giving effect to (i) the automatic conversion of all outstanding shares of preferred stock as of June 30, 2014 into 12,298,515 shares of common stock immediately prior to the closing of this offering and (ii) our receipt of the net proceeds from our sale of 5,000,000 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 June 30, 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 deficit per share as of June 30, 2014	$(13.32)	
Pro forma increase in net tangible book value per share as of June 30, 2014 attributable to the conversion of preferred stock		
Pro forma net tangible book value per share as of June 30, 2014, before giving effect to this offering	4.09	
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, to $ per share and the dilution to new investors to $ 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, to approximately $ per share and the dilution to new investors to $ 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 pro forma total number of shares of our common stock reflected in the discussion and table above is based on 13,739,907 shares of our common stock (including preferred stock on an as-converted basis and 63,076 shares of restricted common stock that will vest upon the closing of this offering) outstanding as of June 30, 2014, and excludes the following:

- 893,651 shares of common stock issuable upon settlement of RSUs outstanding as of June 30, 2014 pursuant to our 2012 Plans;
- 6,000 shares of common stock issuable upon settlement of RSUs issued after June 30, 2014 under our 2014 Plan;
- 554,959 shares of common stock issuable upon the exercise of options granted after June 30, 2014 under our 2014 Plan, 209,959 of which have an exercise price of $12.55 per share, and 345,000 of which have an exercise price per share equal to the initial public offering price in this offering;
- 1,802,313 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;
- 230,769 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;
- 726,298 shares of restricted common stock, which remained subject to vesting as of June 30, 2014; and
- 59,761 shares of common stock issued in September 2014 in connection with the execution of our exclusive option agreement with MSK.

The table below summarizes as of June 30, 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	14,403,128	74.2%	$75,281,635	%	$ 5.23
New investors	5,000,000	25.8%		%	$
Totals	19,403,128	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 28.5% 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 %.

Certain of our existing stockholders and their affiliated entities have indicated an interest in purchasing up to an aggregate of approximately $ million of shares of our common stock in this offering at the initial public offering price. However, because indications of interest are not binding agreements or commitments to purchase, the foregoing discussion and table do not reflect the potential purchase of any shares in this offering by our existing stockholders.

The total number of shares of our common stock reflected in the table above is based on 14,403,128 shares of our common stock (including preferred stock on an as-converted basis) outstanding as of June 30, 2014 and excludes the following:

- 893,651 shares of common stock issuable upon settlement of RSUs outstanding as of June 30, 2014 pursuant to our 2012 Plans;
- 6,000 shares of common stock issuable upon settlement of RSUs issued after June 30, 2014 under our 2014 Plan;
- 554,959 shares of common stock issuable upon the exercise of options granted after June 30, 2014 under our 2014 Plan, 209,959 of which have an exercise price of $12.55 per share, and 345,000 of which have an exercise price per share equal to the initial public offering price in this offering;
- 1,802,313 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;
- 230,769 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; and
- 59,761 shares of common stock issued in September 2014 in connection with the execution of our exclusive option agreement with MSK.

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 June 30, 2014 vested and settled, then our existing stockholders, including the holders of these RSUs, would own 75.4% and our new investors would own 24.6% 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 six months ended June 30, 2013 and 2014 and our consolidated balance sheet data as of June 30, 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	Six months ended June 30, 2013	Six months ended June 30, 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	$ 923	$ 5,091
Research and development costs paid to Amgen	—	553	—	1,066
In-process research and development acquired from Amgen	3,018	—	—	—
General and administrative	834	3,756	1,724	5,454
Total expense	4,093	8,615	2,647	11,611
Loss from operations	(4,093)	(8,615)	(2,647)	(11,611)
Interest income	—	12	6	29
Loss before provision for income taxes	(4,093)	(8,603)	(2,641)	(11,582)
Provision (benefit) for income taxes	17	170	40	(22)
Net loss and comprehensive loss	$ (4,110)	$ (8,773)	$(2,681)	$(11,560)

	Period from August 22, 2012 (Inception) to December 31, 2012	Year ended December 31, 2013	Six months ended June 30, (unaudited) 2013	2014
	(in thousands, except share and per share information)			
Basic and diluted net loss per common share	$ (5.60)	$ (9.08)	$ (3.06)	$ (8.89)
Weighted-average common shares outstanding used to compute basic and diluted net loss per common share	733,294	965,825	876,814	1,300,393
Pro forma net loss per common share (unaudited)(1)		$ (1.28)		$ (0.85)
Weighted-average common shares outstanding used to compute pro forma net loss per share		6,870,743		13,677,230

(1) See Note 2 to our combined and consolidated financial statements for an explanation of the calculations of pro forma net loss per common share.

	As of December 31, 2012	As of December 31, 2013	As of June 30, 2014
	(in thousands)		
Combined and Consolidated Balance Sheets Data:			
Cash and cash equivalents	$ 4,207	$ 51,615	$ 31,779
Short-term available-for-sale investments	—	—	24,719
Working capital	2,940	50,284	54,984
Total assets	4,290	51,828	58,503
Convertible preferred stock	6,711	61,091	74,572
Accumulated deficit	(4,110)	(12,883)	(24,443)
Total stockholders' deficit	(3,727)	(11,017)	(18,353)

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 product candidates in preclinical development and an exclusive option to license several others through an agreement with MSK. We intend to license or acquire additional product candidates to develop and commercialize.

Our current portfolio of licensed product candidates 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 615,384 shares of Series A-1 convertible preferred stock on a combined basis 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 $11.6 million for the year ended December 31, 2013, and the six months ended June 30, 2014, respectively. As of June 30, 2014, we had an accumulated deficit of $24.4 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 June 30, 2014 totaled $56.5 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;

- process development and manufacturing of drug supply for ATA 842 to support IND-enabling studies; and
- evaluating our exclusive option to license certain T-cell therapies from MSK.

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 June 30, 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 615,384 shares 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 Select 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, March 31, 2014 and June 26, 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 and June 26, 2014 valuations, which is a critical factor contributing to the increase in the fair value of our common stock as of those dates. For purposes of the March 31, 2014 and June 26, 2014 valuations, 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 for March 31, 2014, 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, the sale of additional shares of Series B convertible preferred stock 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 estimated 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.

Under the hybrid method for June 26, 2014, 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, the sale of additional shares of Series B convertible preferred stock 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 estimated 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 one month, the second scenario assumed we would complete an initial public offering within three months and the third scenario assumed we would complete an initial public offering within nine 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	$ 1.60	53.3%	0.28%	2.25	29.7%
March 5, 2013	$ 1.63	54.5%	0.25%	2.00	29.7%
November 25, 2013	$ 2.57	54.2%	0.26%	1.75	26.9%
January 8, 2014	$ 2.67	53.2%	0.32%	1.63	25.5%
March 31, 2014[3]	$ 8.59	56.0%	0.14%	1.03	21.8%
June 26, 2014[3]	$ 12.55	47.9%	0.04%	0.25	9.4%

(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 June 30, 2014. As of June 30, 2014,

there was approximately $7,846,269 of unrecognized stock-based compensation expense related to nonvested RSUs. Assuming an initial public offering had occurred on June 30, 2014, $3,274,365 of this stock-based compensation expense would have been recognized in our statement of operations and comprehensive loss for the six months ended June 30, 2014 and $4,571,904 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 have hired and are continuing to actively seek 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 Six Months Ended June 30, 2013 and 2014

Research and development expenses

	Six months ended June 30,		Increase (Decrease)
	2013	2014	
	(in thousands)		
Research and development	$ 923	$ 5,091	$ 4,168
Research and development costs paid to Amgen	—	1,066	1,066
	$ 923	$ 6,157	$ 5,234

Research and development expenses increased during the six months ended June 30, 2014 compared to the same period in 2013 and consisted of the following costs by program:

	Six months ended June 30,	
	2013	2014
	(in thousands)	
PINTA 745	$ 209	$ 1,136
STM 434	225	3,150
ATA 842	5	80
Employee and overhead cost	484	1,791
Total	$ 923	$ 6,157

PINTA 745 costs increased by $0.9 million in the six months ended June 30, 2014 compared to the six months ended June 30, 2013 due primarily to increased outside consultants' costs to support the Phase 2 clinical trial that commenced during the fourth quarter of 2013.

STM 434 program costs increased by $2.9 million in the six months ended June 30, 2014 compared to the six months ended June 30, 2013 due to $1.2 million in increased outside manufacturing costs for clinical drug supply and approximately $0.7 million of increased costs related to the upcoming Phase 1 clinical study of STM 434, which is expected to commence in the second half of 2014. In addition, we made a $1.0 million milestone payment to Amgen in connection with the opening of our IND application for STM 434.

Employee and overhead costs increased by $1.3 million in 2014 as compared to 2013 as a result of increased payroll-related costs resulting from increased headcount and higher stock-based compensation costs.

General and administrative expenses

	Six months ended June 30,		Increase (Decrease)
	2013	2014	
	(in thousands)		
General and administrative	$ 1,724	$ 5,454	$ 3,730

General and administrative expenses increased in the six months ended June 30, 2014 compared to the six months ended June 30, 2013 due to a $2.4 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 additional payroll-related costs. Personnel costs and stock-based compensation costs were higher in the six months ended June 30, 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 $24.4 million as of June 30, 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 $55.0 million as of December 31, 2012, December 31, 2013 and June 30, 2014, respectively. Included in working capital were cash, cash equivalents, and short-term investments of $4.2 million, $51.6 million and $56.5 million as of December 31, 2012, December 31, 2013 and June 30, 2014, respectively.

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

	December 31,		June 30,
	2012	2013	2014
	(in thousands)		
Cash and cash equivalents	$4,207	$51,615	$31,779
Short-term available-for-sale investments	—	—	24,719
Total cash and cash equivalents and short-term available-for-sale investments	$4,207	$51,615	$56,498

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 Six Months Ended June 30, 2013 and 2014

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

	Six months ended June 30,	
	2013	2014
	(in thousands)	
Net cash provided by (used in):		
Operating activities	$ (1,788)	$ (7,579)
Investing activities	(3)	(24,992)
Financing activities	14,963	12,735
Net increase (decrease) in cash and cash equivalents	$13,172	$(19,836)

Operating activities

For the six months ended June 30, 2013 and 2014, we used $1.8 million and $7.6 million of net cash in operating activities, respectively. The $5.8 million increase in cash used in operating activities was primarily due to the increase in net loss from 2013 to 2014 of $8.9 million, offset in part by a $3.2 million increase in stock-based compensation for the 2014 period.

Investing activities

Net cash used in investing activities consisted primarily of $25.0 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 six months ended June 30, 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 six months ended June 30, 2014 was $12.7 million, consisting of $13.5 million in proceeds from the sale of shares of Series B convertible preferred stock, offset by offering costs and $1.1 million of deferred costs relating to our anticipated initial public offering.

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.

In September 2014, we entered into a non-cancellable sublease agreement for corporate headquarters. The sublease term will begin upon receipt of master landlord consent to the sublease and ends on January 31, 2017. Estimated total lease commitments under the sublease are approximately $0.4 million.

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 made 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.

In September 2014, we entered into an exclusive option agreement with MSK under which we have the right to acquire (pursuant to a negotiated form of license agreement) the exclusive, worldwide license rights to the three clinical stage T-cell therapies of MSK. The initial option period is for twelve months, with extensions available to extend the term up to 27 months at the option of Atara. Under the terms of the option agreement, we are obligated to use reasonable efforts to prepare a request to be submitted to the FDA regarding a meeting to discuss pivotal trials for the three clinical stage T-cell therapies. In exchange for the exclusive option, we paid MSK $1.25 million in cash and issued 59,761 shares of our common stock to MSK. We are also obligated to pay MSK an additional amount up to $630,000 if we extend the option period. Atara and MSK have agreed to collaborate on further research to develop additional cellular therapies, which may include T-cell therapies against other antigens and/or chimeric antigen receptor-modified T-cells, known as CAR-T.

If we exercise the option and enter into the license agreement with MSK, we will be obligated under the license agreement to pay to MSK an upfront cash payment of $4.5 million and additional payments of up to $33.0 million based on a license fee and achievement of specified development, regulatory and sales-related milestones, and to make royalty payments based on sales of the T-cell therapy products.

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 June 30, 2014 we had cash and cash equivalents and short-term available-for-sale investments of $4.2 million, $51.6 million, and $56.5 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 product candidates in preclinical development and an exclusive option to license several others through an agreement with MSK. 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.
- ***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.
- ***Dosing schedule*** — PINTA 745 is dosed weekly, which conveniently aligns with dialysis treatment schedules.

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 product candidates 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 therapeutics 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 product candidates 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.

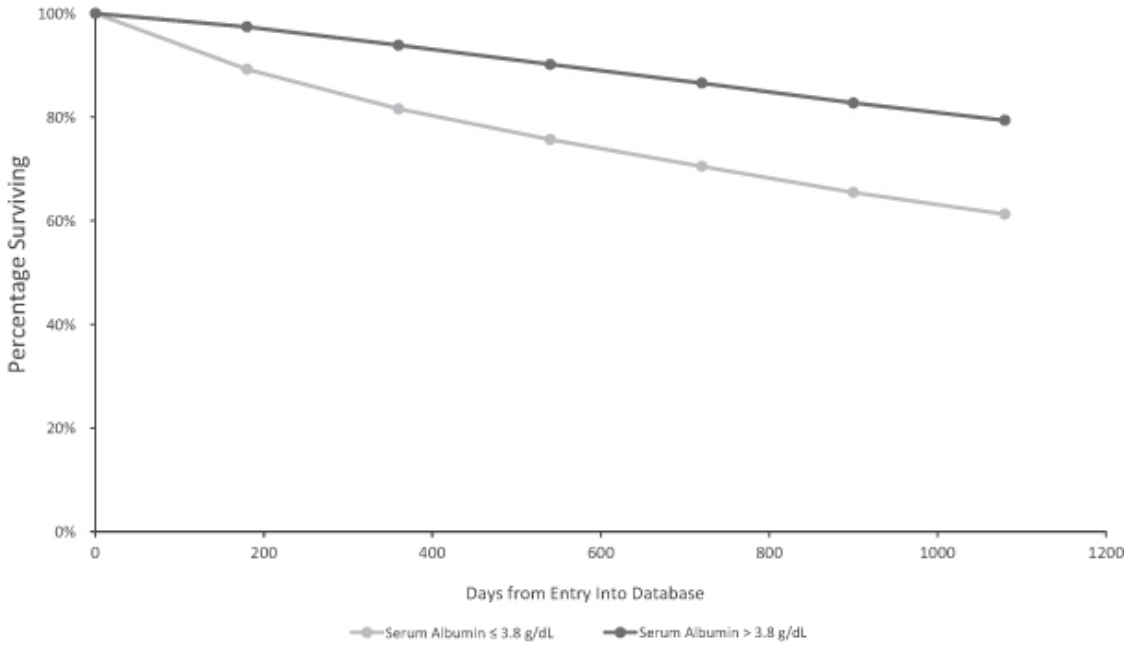
DaVita Study

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

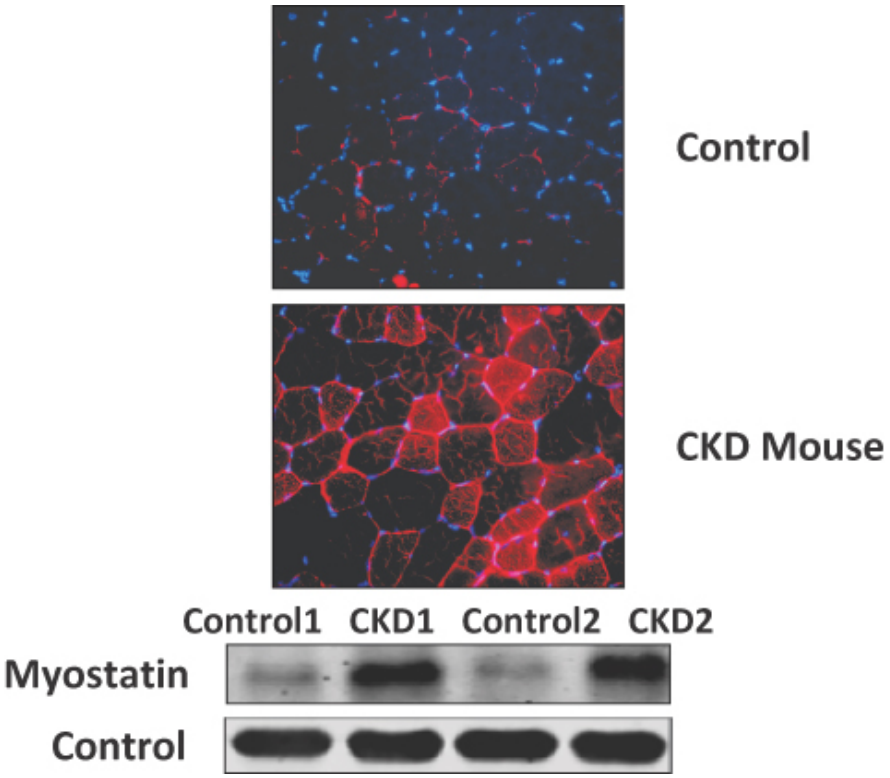
There are no pharmacologic therapies approved by the FDA indicated for PEW. Furthermore, we are not aware of any such therapies in clinical trials for PEW that target myostatin. Current treatment options for muscle wasting include appetite stimulants, nutritional support, corticosteroids, anabolic steroids 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.

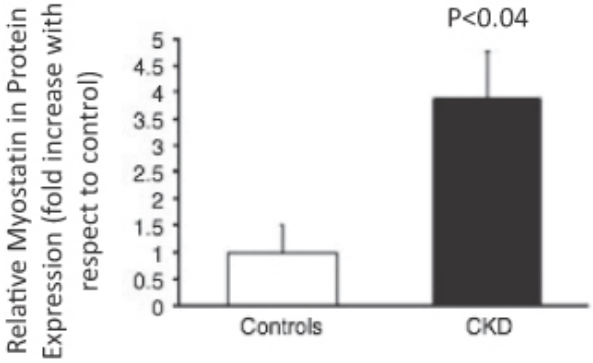
Myostatin inhibition was first characterized and evaluated in the mid-1990s as a potential mechanism for limiting muscle wasting. Several proof-of-concept studies have shown the ability of myostatin inhibitors to build muscle. Several other companies are pursuing myostatin inhibitors for other conditions,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

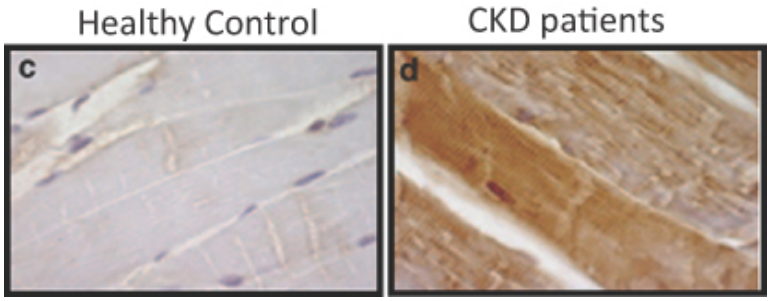


In the two upper images, myostatin upregulation is shown by fluorescence in the muscle cells of a CKD mouse compared to a control mouse. In the two lower images, myostatin protein expression levels are shown in the muscle cells of two CKD mice compared to control mice.

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:

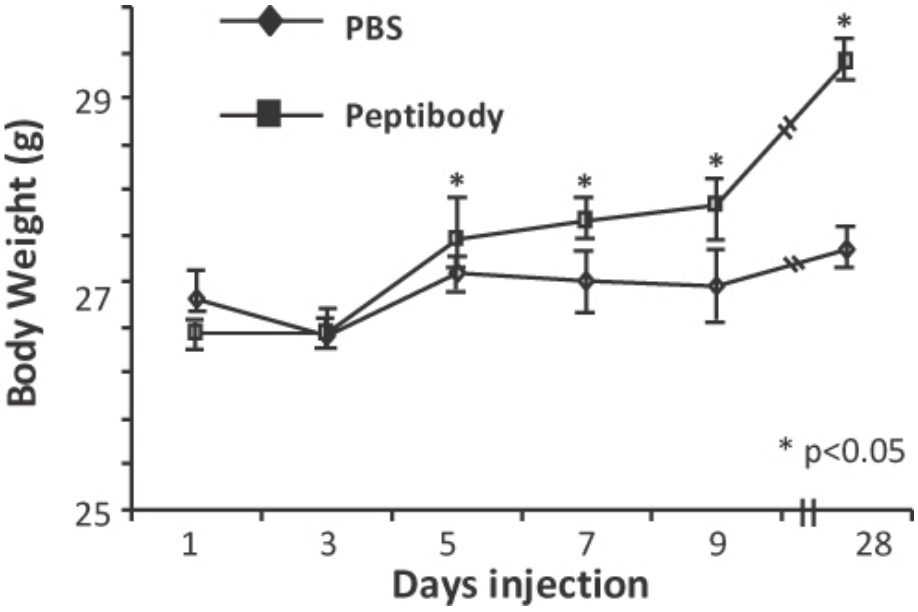
- demonstrated ability to promote muscle growth;
- anti-inflammatory properties, a factor that we believe will be important due to the critical role that inflammation plays in PEW and the overall declining health of ESRD patients; and
- dosing schedule, which conveniently aligns with dialysis treatment schedules.

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.

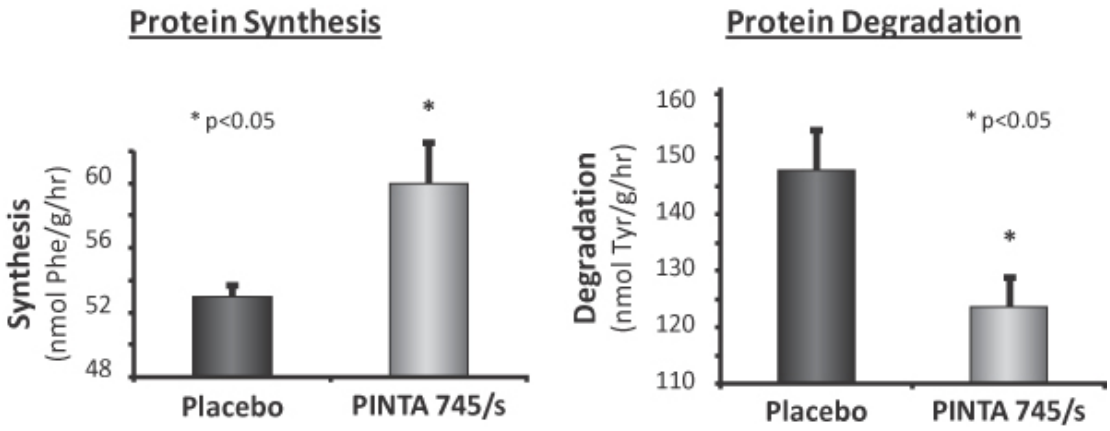
Preclinical Studies

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, 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.

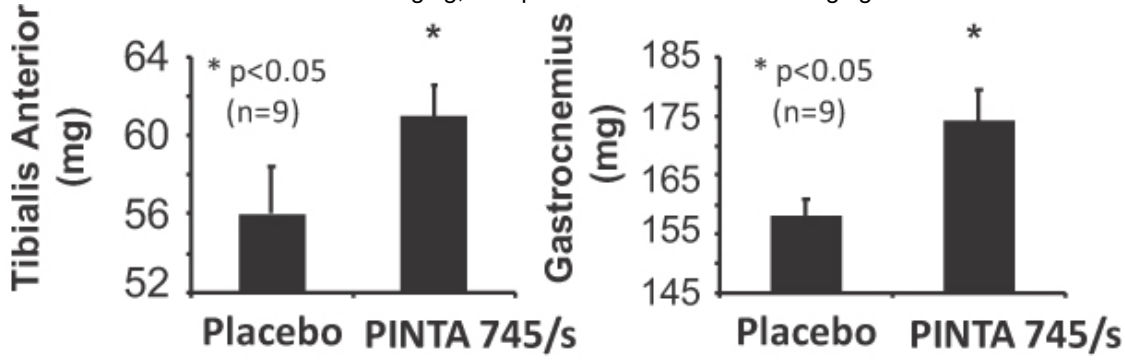
After seven days of PINTA 745/s treatment, the body and muscle weights of the CKD mice increased significantly compared with those in saline-treated CKD mice, an effect that persisted over 28 days.



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

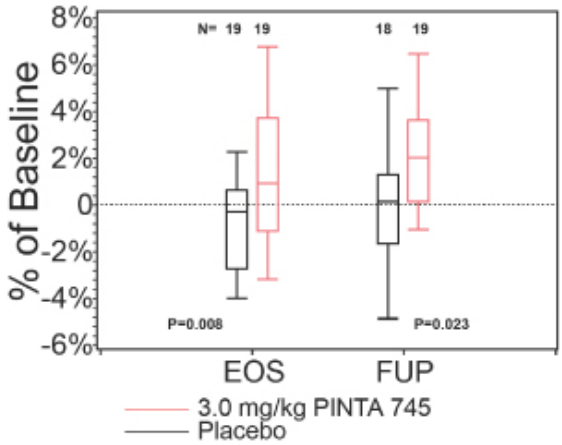
To date, three Phase 1 studies of PINTA 745 have been conducted, two in healthy volunteers and one in prostate cancer patients. PINTA 745 showed both safety and tolerability in all three Phase 1 studies. Across all studies, which enrolled a total of 151 subjects, 48 subjects were exposed to the highest 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*.

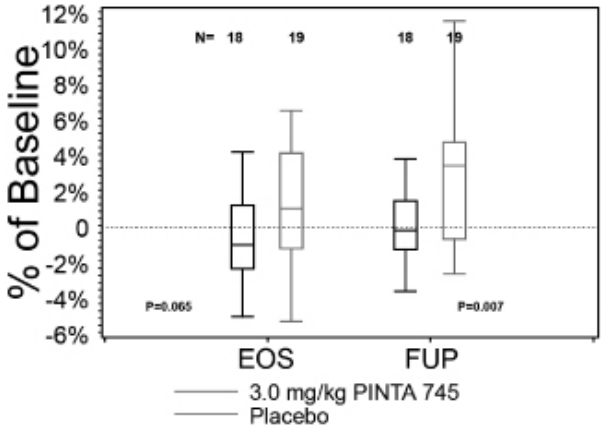
Efficacy parameters that were measured in this study included lean body mass as measured by dual energy X-ray absorptiometry, or DEXA, and lower-extremity muscle size as measured by CT scan. These methods are considered industry standard imaging techniques for measuring muscle mass or volume. Formal 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 48 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
Route of Administration	Subcutaneous Injection	Intravenous Injection	Enhances drug exposure and aligns with routine patient management in the dialysis setting
Duration of Therapy	1 month	3 months	Longer-term dosing may enhance muscle growth
Dose of PINTA 745	0.3, 1 and 3 mg/kg given weekly	3 mg/kg weekly; 3 mg/kg loading dose followed by 1 mg/kg maintenance dose; and 6 mg/kg loading dose followed by 2 mg/kg maintenance dose	Higher drug exposure may be more effective while similarly well-tolerated
Duration of follow up	1 month	2 months	Extends information on durability of effect

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.

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

We have completed enrollment of the first eight patients at the 3 mg/kg weekly dose level. To date, we have observed no dose-limiting toxicities, no treatment-related serious adverse events nor grade 3 or higher adverse events and no anti-drug antibody formation. Adverse events that were deemed possibly related to treatment with PINTA 745 were all grade 1 or 2 in severity, with myalgia, or muscle pain, as the most commonly reported treatment-related adverse event. The safety committee, consisting of the clinical trial sponsor and the trial investigators, considered the 3 mg/kg weekly dose to be safe and well tolerated and determined that it would be appropriate to proceed with protocol-specified dose expansion and dose escalation. Pharmacokinetic data from these first eight patients showed that PINTA 745 has a longer half-life in ESRD patients compared with previously studied healthy volunteers and men with prostate cancer. Drug exposure levels in PEW patients at 3 mg/kg were similar to those predicted for 10 mg/kg based on the prior Phase 1 experience. This pharmacokinetic data also showed that an administration schedule consisting of loading doses followed by maintenance doses is appropriate for this patient population in order to rapidly achieve steady-state levels of PINTA 745. As a result, we have amended the protocol to:

- add a new cohort of 20 patients who will receive a loading dose of 3 mg/kg given weekly for three weeks, followed by treatment for an additional nine weeks with a dose of 1 mg/kg given weekly, a regimen that is anticipated to provide drug exposures in PEW patients similar to those achieved in prostate cancer patients that showed statistically significant improvements in lean muscle mass; and
- add a new cohort of 20 patients who will receive a loading dose of 6 mg/kg given weekly for three weeks, followed by treatment for an additional nine weeks with a dose of 2 mg/kg given weekly, to escalate exposure and explore efficacy and safety at a higher dose level.

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

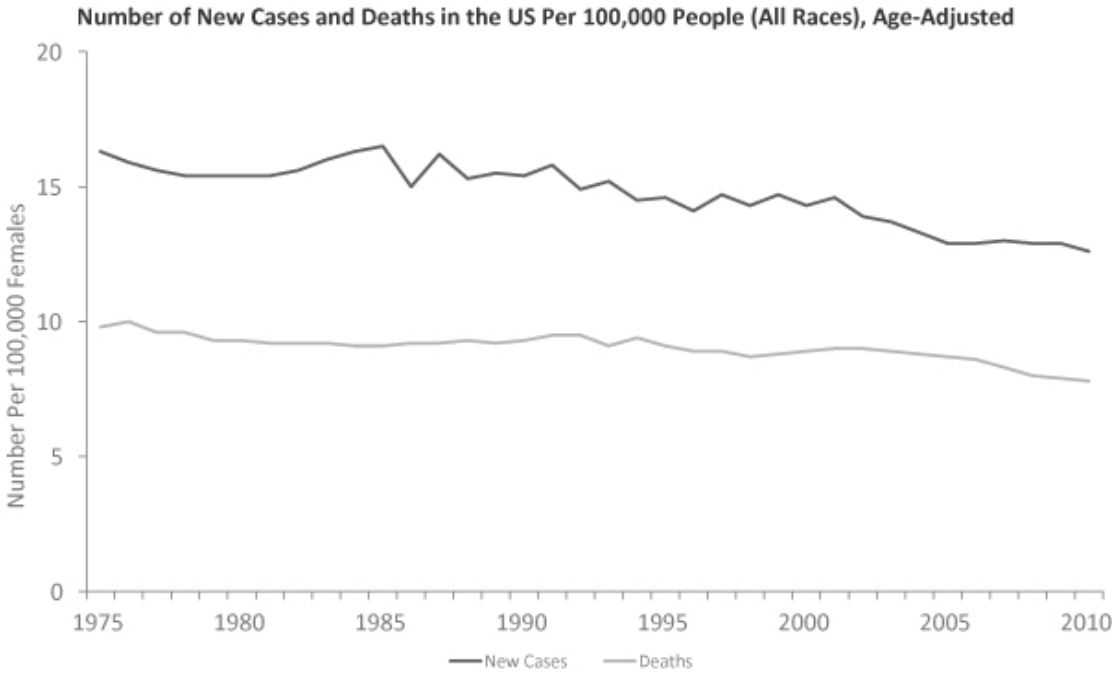
Ovarian cancer is the fifth leading cause of cancer death in women in the United States. According to the National Cancer Institute, there were an estimated 22,240 new ovarian cancer cases and 14,030 ovarian cancer deaths in the United States in 2013. Surgery and cytotoxic chemotherapies are widely used 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

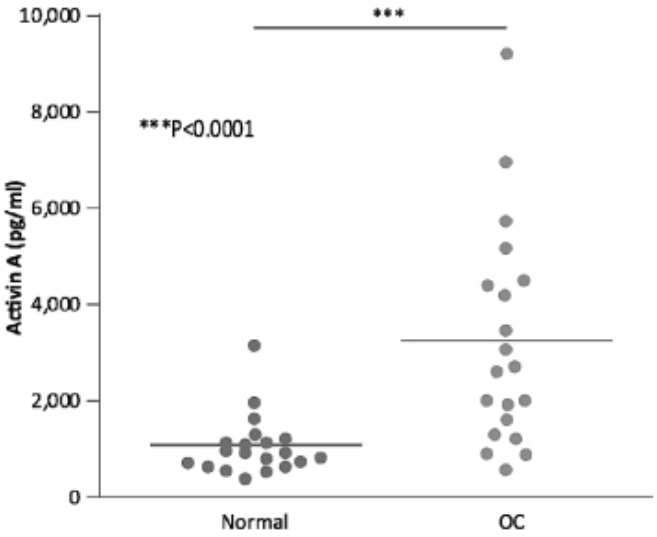
For patients whose tumors did not respond to first line therapy, or for those whose tumors became unresponsive to platinum chemotherapy, a number of other chemotherapy options may be applied, including liposomal doxorubicin, topotecan and gemcitabine. Despite these therapies, the median survival of platinum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

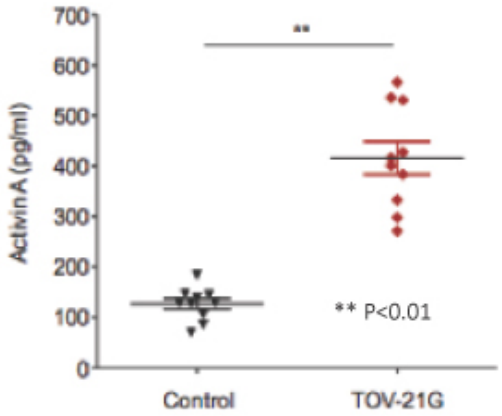
Preclinical testing of STM 434 was designed to confirm and quantify its effects in binding Activin A and other ligands with a receptor-like ligand trap. These studies were conducted with STM 217, a close analog of STM 434, which we refer to as STM 434/s. In addition, these studies were carried out in 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)

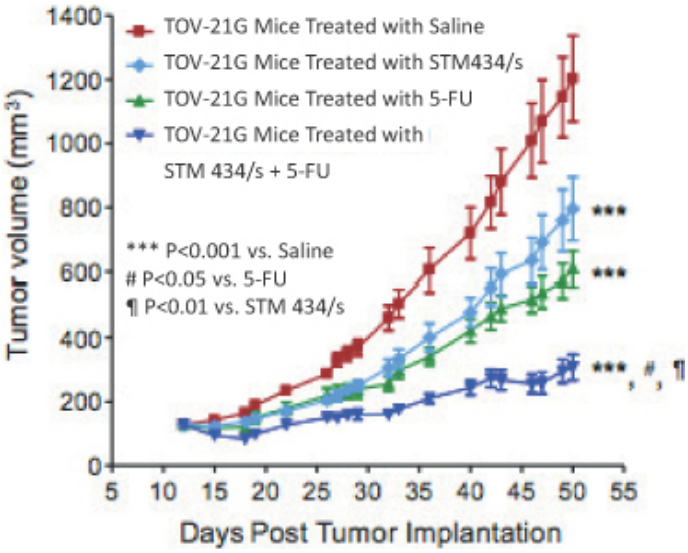
In a preclinical study using TOV-21G mice, tumors derived from human clear cell ovarian carcinoma were shown to have high levels of serum Activin A, analogous to those observed in human ovarian cancer patients as described above.

Serum Activin A

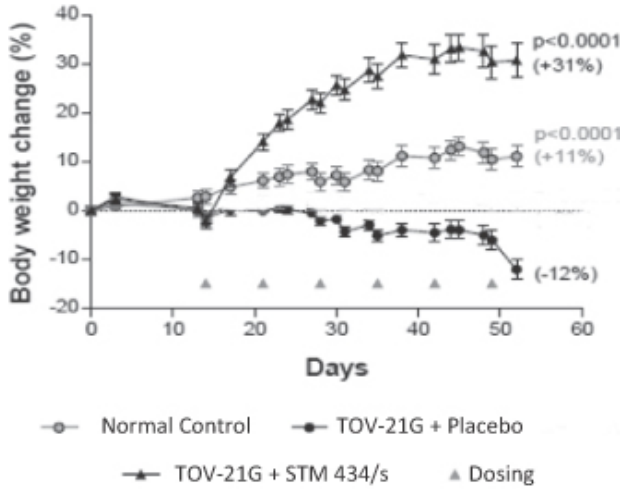


In a subsequent preclinical study that we presented together with Amgen at the American Society of Clinical Oncology meeting in Chicago in 2013, we evaluated STM 434/s in this TOV-21G model used as both a single agent and in combination with the chemotherapy agent 5-fluorouracil, or 5-FU. STM 434/s was 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



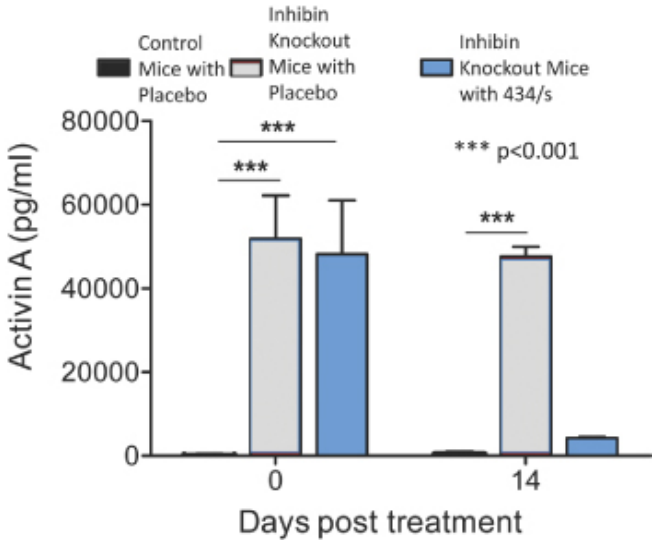
In addition, this study examined the anticachectic effects of STM 434/s in this model. Cachexia is a condition associated with significant weight loss often seen in patients with solid tumor cancers. The results of this study showed that the administration of STM 434/s increased body weight of the mice. 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.

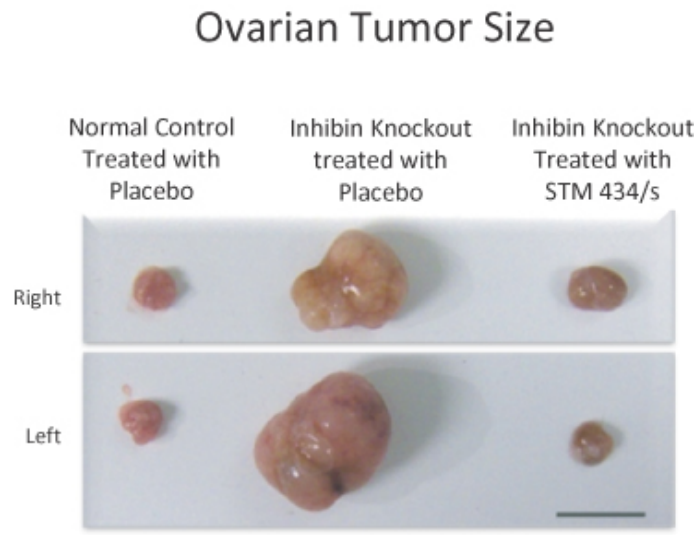
Inhibin Knockout Mouse Model (Granulosa Cell Tumors)

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.

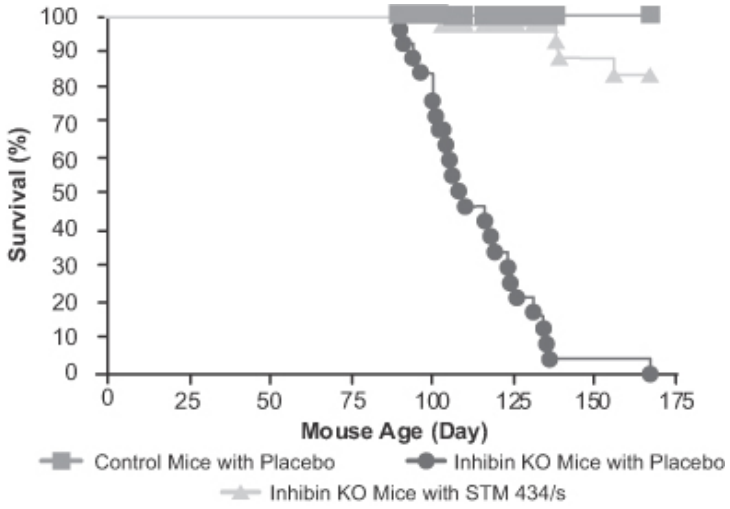


STM 434/s treatment reduced the elevated circulating Activin A in the inhibin knockout mice to the levels in control mice. Serum Activin A was measured before and 14 days after treatment.

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.



On July 22, 2014, Amgen provided us a draft report from a 2009 eight-week pharmacology study of STM 217, a compound closely related to STM 434, in orchiectomized, or neutered, male cynomolgus monkeys. This pharmacology study was designed to explore the ability of STM 217 to reverse the effects of androgen deprivation. In the study, two weekly doses of STM 217 were evaluated at 3 mg/kg and 10 mg/kg. The study found that STM 217 was effective in mitigating the muscle and bone loss that accompany androgen deprivation in this animal model.

In addition to the muscle and bone effects, clinical observations from the study included bleeding from the muzzle (similar to human nosebleeds) in some of the monkeys and one animal bleeding from a skin lesion over the buttock. In this study, it was not possible to determine if the bleeding was caused by STM 217. To further characterize this observation, we performed additional in vitro studies of STM 217 and STM 434. Platelets, a component of blood that helps stop bleeding, were evaluated, and neither STM 217 nor STM 434 impacted platelet function. We also evaluated BMP-9, a factor involved in bleeding and blood vessel development known to be mutated in humans with hereditary hemorrhagic telangiectasia, or HHT. Both STM 217 and STM 434 bound to BMP-9 in these studies, suggesting that the bleeding observed with STM 217 could also be observed with STM 434. The observations from the STM 217 report and the in vitro studies we conducted have been shared with the FDA.

As a result of these findings with STM 217, we have altered our STM 434 Phase 1 study protocol to exclude patients at heightened risk of bleeding and enhance the monitoring of patients for bleeding or increased risk for bleeding. These changes were also shared with the FDA.

Phase 1 Clinical Study in Ovarian Cancer and Other Solid Tumors

We have clinical trial material available for distribution and 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. We also plan to conduct ARID1A and FOXL2 mutation testing in our Phase 1 study. These mutations have been associated with tumor proliferation.

Pipeline

Our pipeline currently consists of five product candidates that were licensed from Amgen 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 product candidates 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 product candidates to determine the best path forward. Where appropriate, we intend to conduct preclinical studies and file IND applications with regulatory authorities for these candidates. In addition, we have an option to license three clinical stage T-cell therapies from MSK as described below.

Research stage programs licensed from Amgen

Our product pipeline licensed from Amgen includes the following:

- *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.

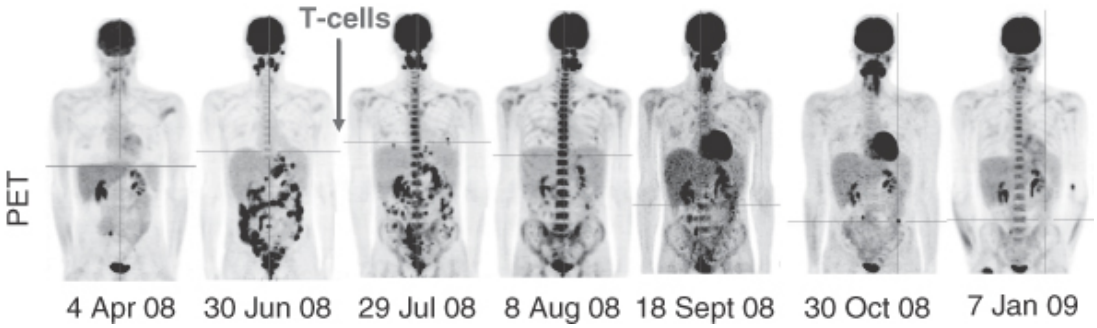
MSK T-Cell Therapies

In September 2014, we entered into an exclusive option agreement with MSK under which we have the right to acquire (pursuant to a negotiated form of license agreement) the exclusive, worldwide license rights to three clinical stage T-cell therapies. T-cells are a critical component of the body's immune system and can be harnessed to counteract viral infections and some cancers. By focusing the T-cells on specific proteins involved in cancers and infections, the power of the immune system can be employed to combat these diseases. The three programs share a common technology under which

third-party donor-derived whole blood is collected and enriched for T-cells. The T-cells are then exposed to certain antigens, and the resulting activated T-cells are characterized and stored for future therapeutic use in an appropriate partially human leukocyte antigen, or HLA, matched patient.

Two of the T-cell therapies are currently in Phase 2 clinical trials and one therapy is currently in Phase 1 clinical studies. The Phase 2 programs consist of T-cells activated against Epstein Barr Virus, or EBV, and T-cells activated against cytomegalovirus, or CMV. EBV is the virus that causes mononucleosis, and in immunocompromised patients, it can cause lymphoma and other cancers; CMV is a different virus that can result in blindness, illness or death depending on the tissue it affects in those with weakened immune systems. The phase 1 program consists of T-cells activated against Wilms Tumor 1, or WT1. Abnormal expression of WT1 is seen in a variety of hematologic and solid tumors including multiple myeloma, acute myeloid leukemia, and ovarian cancer.

Efficacy and safety data for both Phase 2 programs have been published in the journal *Blood*. For example, in a report published in 2012 in the journal *Blood*, 19 patients with EBV-associated lymphoma were treated with the EBV targeted T-cell therapy. The complete response rate was 68%, indicating that in 13 of 19 patients no visible evidence of tumor following treatment was observed. Ten of these 19 patients had previously failed rituximab and had subsequently progressed. Of these ten patients, seven (70%) achieved a complete response. The time course of a complete response following administration of the EBV targeted T-cells in a patient with EBV-associated lymphoma is shown below using sequential positron emission tomography, or PET, scans. The PET scans, in which dark areas correspond to areas of high metabolic activity, show both normal metabolism of organs such as the heart and abnormal metabolism in areas of lymphoma. After treatment with T cells, the abnormal areas of metabolism recede, indicating eradication of tumor cells. In the final image no abnormal metabolic activity is observed reflecting a complete response to the T-cell therapy.



Another study involved 13 patients with persistent CMV infection despite standard treatment who were treated with the CMV targeted T-cell therapy, and 12 of the 13 patients cleared the viral infection. There were no immediate adverse reactions observed due to either of the cell therapies.

During the option period, we will be working with MSK to submit information to the FDA supporting a pivotal clinical trial with an initial focus on the EBV-directed program. Concurrent with the option and license agreement, we and MSK have agreed to collaborate on further research to develop additional cellular therapies, which may include T-cell therapies against other antigens and/or CAR-T.

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 for sarcopenia; Acceleron Pharma, which is developing ACE-083, a modified cysteine knot ligand trap of the TGF-beta superfamily, for diseases in which improved muscle strength may provide a clinical benefit, such as inclusion body myositis and certain forms of muscular dystrophy; 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 205,128 shares 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 205,128 shares of Series A-1 convertible preferred stock will convert into one share of common stock upon the closing of this 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 Amgen 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 410,256 shares of Series A-1 convertible preferred stock. Each of the 410,256 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.

MSK Option and License Agreement

In September 2014, we entered into an exclusive option agreement with MSK under which we have the right to acquire (pursuant to a negotiated form of license agreement) the exclusive, worldwide license rights to the three clinical stage T-cell therapies of MSK. The initial option period is for twelve months, with extensions available to extend the term up to 27 months at the option of Atara. Under the terms of the option agreement, we are obligated to use reasonable efforts to prepare a request to be submitted to the FDA regarding a meeting to discuss pivotal trials for the three clinical stage T-cell therapies. In exchange for the exclusive option, we paid MSK $1.25 million in cash and issued 59,761 shares of our common stock to MSK. We are also obligated to pay MSK an additional amount up to

$630,000 if we extend the option period. Atara and MSK have agreed to collaborate on further research to develop additional cellular therapies, which may include T-cell therapies against other antigens and/or CAR-T.

If we exercise the option and enter into the license agreement with MSK, we will be obligated under the license agreement to pay to MSK an upfront cash payment of $4.5 million and additional payments of up to $33.0 million based on a license fee and achievement of specified development, regulatory and sales-related milestones, and to make royalty payments based on sales of the T-cell therapy products.

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 95 issued patents and 171 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 2023 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 jurisdictions worldwide, including the US, the European Patent Office, 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 and patent applications range from 2023 to 2035, exclusive of possible patent term extensions or adjustments.

STM 434 Patent Portfolio

We hold exclusive rights to three 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 jurisdictions worldwide, including in the US, 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 and patent applications range from 2026 to 2035, 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 1,100 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 2,285 square feet of leased office space under a lease that expires in October 2014.

In September 2014, we entered into a non-cancellable sublease agreement for our new corporate headquarters, consisting of approximately 7,000 square feet of leased office space in South San Francisco, California. The sublease term begins upon receipt of consent from the master landlord and ends in January 2017. We intend to occupy our new corporate headquarters in the fourth quarter of 2014, at which point we will no longer occupy the facility in Brisbane, California and will allow that lease to expire on its terms.

Employees

As of September 15, 2014, we had 15 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 September 15, 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	38	Chief Operating Officer
Non-Employee Directors		
Matthew K. Fust(1)(3)	50	Director
Carol Gallagher, Pharm.D.(1)(2)(3)	50	Director
Joel S. Marcus(1)(2)	67	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 Drs. Seidenberg and Weber, and their terms will expire at the annual general meeting of stockholders to be held in 2015;
- the Class II directors will be Messrs. Fust and Marcus, and their terms will expire at the annual general meeting of stockholders to be held in 2016; and
- the Class III directors will be Drs. Ciechanover and Gallagher, 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 closing 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 44,871 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, 8,413 RSUs had satisfied the service condition. With regard to the 44,871 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 25,640 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 closing 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. Also in 2014, our board of directors approved the grant of 37,852 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 153,846 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 closing 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	629,326(3)	$ 1,681,738
	8/30/12	59,230(4)	158,281
Christopher Haqq	3/4/2013	177,163(5)	473,429
	3/4/2013	3,846(6)	10,278
Gad Soffer	3/25/2013	153,846(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 $2.672, the fair market value of one share of our common stock on December 31, 2013.

(3) Represents the unvested portion of 888,461 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 177,692 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 257,692 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 11,538 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 888,461 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 177,692 shares of common stock. Of these shares, which were also purchased in August 2012, 118,462 have vested based on the completion of our prior equity financings and other performance criteria. The remaining 59,230 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 $0.0039 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 $0.117 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.

In September 2014, the compensation committee approved an increase to Dr. Ciechanover's annual salary to $500,000, with a performance bonus based on a target amount of 50% of his base salary. The compensation committee also approved a grant to Dr. Ciechanover of an option to purchase 155,000 shares of common stock with an exercise price per share equal to the initial public offering price in this offering.

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 269,230 shares of common stock. These shares were purchased in March 2013 at a discounted purchase price of $1.230 per share (at a time when our common stock had a value of $1.63 per share). Of these shares, 257,692 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 11,538 shares of common stock are subject to performance-based vesting, 3,846 of which have previously vested based on the completion of our prior equity financings and other performance criteria, 3,846 of which have previously vested upon completion of the pre-IND submission for STM 434 and other performance criteria, and 3,846 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 $1.230 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.

In September 2014, the compensation committee approved an increase to Dr. Haqq's annual salary to $375,000, with a performance bonus based on a target amount of 35% of his base salary. The compensation committee also approved a grant to Dr. Haqq of an option to purchase 50,000 shares of common stock with an exercise price per share equal to the initial public offering price in this offering.

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.

In September 2014, the compensation committee approved an increase to Mr. Soffer's annual salary to $310,000, with a performance bonus based on a target amount of 35% of his base salary. The compensation committee also approved a grant to Mr. Soffer of an option to purchase 40,000 shares of common stock with an exercise price per share equal to the initial public offering price in this offering.

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 3,526,153. 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 11,538,461.

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 1,538,461 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 1,538,461 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 2,449,230.

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 230,769 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) 230,769 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 5,150,699 shares of our Series A preferred stock for approximately $3.90 per share, for aggregate consideration of approximately $20.1 million. 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 upon the closing of this offering.

	Number of Shares of Series A Preferred Stock	Aggregate Purchase Price
Entities affiliated with Kleiner Perkins Caufield & Byers(1)	1,282,050	$5,000,000
Entities affiliated with Domain Associates(2)	1,282,050	$5,000,000
Entities affiliated with DAG Ventures	1,282,050	$5,000,000
Inmobiliaria Carso S.A. de C.V.	897,435	$3,500,000
Alexandria Real Estate Equities, Inc.(3)	256,410	$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 615,384 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 upon the closing of this offering.

Series B Preferred Stock Financing

From November 2013 through January 2014, we issued and sold an aggregate of 6,532,432 shares of our Series B preferred stock for approximately $7.96 per share, for aggregate consideration of approximately $52.0 million. 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 upon the closing of this offering.

	Number of Shares of Series B Preferred Stock	Aggregate Purchase Price
Entities managed by The Baupost Group, L.L.C.	1,695,913	$13,500,001
Celgene Corporation	1,256,235	$10,000,000
Amgen Inc.	628,117	$ 4,999,999
Entities affiliated with Domain Associates(1)	625,382	$ 4,978,233
Entities affiliated with DAG Ventures	625,382	$ 4,978,233
Entities affiliated with Kleiner Perkins Caufield & Byers(2)	625,370	$ 4,978,129
Alexandria Real Estate Equities, Inc.(3)	501,945	$ 3,995,631
Inmobiliaria Carso S.A. de C.V.	437,767	$ 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."

Participation in this Offering

Certain of our existing stockholders and their affiliated entities have indicated an interest in purchasing an aggregate of approximately $ million of shares of our common stock in this offering at the initial public offering price. However, because indications of interest are not binding agreements or commitments to purchase, any of these stockholders may determine to purchase more, less or no shares in this offering, or the underwriters may determine to sell more, less or no shares in this offering to any of these stockholders. Any shares purchased by such stockholders will be subject to the lock-up restrictions described in the section titled "Shares Eligible for Future Sale."

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 September 15, 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 September 15, 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 14,403,128 shares of our common stock (including preferred stock on an as-converted basis) outstanding as of September 15, 2014. We have based our calculation of the percentage of beneficial ownership after this offering on 19,403,128 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).

Certain of our existing stockholders and their affiliated entities have indicated an interest in purchasing an aggregate of approximately $ million of shares of our common stock in this offering at the initial public offering price. However, because indications of interest are not binding agreements or commitments to purchase, any of these stockholders may determine to purchase more, less or no shares in this offering, or the underwriters may determine to sell more, less or no shares in this offering to any of these stockholders. The following table does not reflect any potential purchases by these stockholders, which purchases, if any, will increase the percentage of shares owned after the offering of such stockholder from that set forth in the table below.

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)	2,676,650	18.6%	13.8%
Entities affiliated with Domain Associates(2)	1,907,432	13.2%	9.8%
Entities affiliated with DAG Ventures(3)	1,907,432	13.2%	9.8%
Entities managed by The Baupost Group, L.L.C.(4)	1,695,913	11.8%	8.7%
Inmobiliaria Carso S.A. de C.V.(5)	1,335,202	9.3%	6.9%
Celgene Corporation(6)	1,256,235	8.7%	6.5%
Amgen Inc.(7)	1,243,501	8.6%	6.4%
Isaac E. Ciechanover(8)	1,066,153	7.4%	5.5%
Alexandria Real Estate Equities, Inc.(9)	758,355	5.3%	3.9%
Executive Officers and Directors:			
Isaac E. Ciechanover(8)	1,066,153	7.4%	5.5%
Mitchall G. Clark(10)	—	—	—
Christopher Haqq(11)	269,230	1.9%	1.4%
John F. McGrath, Jr.(12)	—	—	—
Gad Soffer(13)	—	—	—
Matthew K. Fust(14)	—	—	—
Carol Gallagher(15)	33,475	*	*
Joel S. Marcus(9)	758,355	5.3%	3.9%
Beth Seidenberg(1)	2,676,650	18.6%	13.8%
Eckard Weber(2)	—	—	
All executive officers and directors as a group (10 persons)(16)	4,803,863	33.4%	24.8%

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

(1) Consists of 2,599,027 shares of common stock held by Kleiner Perkins Caufield & Byers XV, LLC ("KPCB XV") and 77,623 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 1,893,383 shares of common stock held by Domain Partners VIII, L.P. and 14,049 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 1,902,798 shares of common stock held by DAG Ventures V-QP, L.P. and 4,634 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, L.L.C., or Baupost, is a registered investment adviser and acts as the investment adviser to certain private investment limited partnerships on whose behalf these securities were purchased, and in such capacity has voting and investment power with respect to such securities. None of the investment limited partnerships owns greater than 5%

of any class of voting securities. SAK Corporation is the manager of Baupost, and Mr. Seth A. Klarman is the sole director of SAK Corporation. Mr. Klarman and SAK Corporation disclaim beneficial ownership of the securities. The principal business address for Baupost, SAK Corporation, Mr. Klarman and the investment limited partnerships 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 628,117 shares of common stock held by Amgen Investments Ltd., an affiliate of Amgen Inc., and 615,384 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. Dr. Ciechanover also held RSUs for 94,523 shares of common stock that would not be expected to settle within 60 days after September 15, 2014.

(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 September 15, 2014, Mr. Clark also held RSUs for 115,384 shares of common that would not be expected to settle within 60 days after September 15, 2014.

(11) As of September 15, 2014, Mr. Haqq also held RSUs for 13,266 shares of common that would not be expected to settle within 60 days after September 15, 2014.

(12) As of September 15, 2014, Mr. McGrath also held RSUs for 168,029 shares of common stock that would not be expected to settle within 60 days after September 15, 2013.

(13) As of September 15, 2014, Mr. Soffer also held RSUs for 220,178 shares of common stock that would not be expected to settle within 60 days after September 15, 2014.

(14) As of September 15, 2014, Mr. Fust also held RSUs for 25,640 shares of common that would not be expected to settle within 60 days after September 15, 2014.

(15) Represents shares of common stock held by the Gallagher Revocable Trust. As of September 15, 2014, Dr. Gallagher also held RSUs for 82,723 shares of common stock that would not be expected to settle within 60 days after September 15, 2014.

(16) As of September 15, 2014, our directors and executive officers also held RSUs for 719,743 shares of common stock that would not be expected to settle within 60 days after September 15, 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 June 30, 2014, we had outstanding 14,403,128 shares of common stock, which assumes the conversion of all 12,298,515 shares of preferred stock outstanding as of June 30, 2014 into the same number of shares of common stock upon the closing of this offering. Our outstanding capital stock was held by approximately 16 stockholders of record as of June 30, 2014. As of June 30, 2014, we also had outstanding RSUs for 893,651 shares of common stock held by employees, directors and consultants pursuant to our 2012 and 2014 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 June 30, 2014, there were 12,298,515 shares of our preferred stock outstanding, which will convert into 12,298,515 shares of our common stock upon 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 20,000,000 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 14,133,898 shares of common stock outstanding as of June 30, 2014, including 12,298,515 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 14,133,898 shares of common stock outstanding as of June 30, 2014, including 12,298,515 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 14,133,898 shares of common stock outstanding as of June 30, 2014, including 12,298,515 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

Our common stock has been approved for listing on The Nasdaq Global Select 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 Computershare Trust Company, N.A. The transfer agent and registrar’s address is 250 Royall Street, Canton, Massachusetts 02021.

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 June 30, 2014, upon the closing of this offering, 19,403,128 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 194,031 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 Nasdaq Global Select Market 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 181 days after the date of this prospectus, the holders of approximately 14,133,898 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	5,000,000

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 750,000 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 750,000 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.

Certain of our existing stockholders and their affiliated entities have indicated an interest in purchasing an aggregate of approximately $ million of shares of our common stock in this offering at the initial public offering price. However, because indications of interest are not binding agreements or commitments to purchase, any of these stockholders may determine to purchase more, less or no shares in this offering, or the underwriters may determine to sell more, less or no shares in this offering to any of these stockholders. The underwriters will receive the same discount from shares of our common stock purchased by such stockholders as they will from other shares of our common stock sold to the public in this offering. Any shares not so purchased will be offered by the underwriters to the general public on the same basis as other shares offered pursuant to this prospectus.

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.

Our common stock has been approved for listing on The Nasdaq Global Select 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 Select 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 $3.0 million, including up to $30,000 of expenses that we have agreed to reimburse the underwriters for costs relating to clearance of this offering with the Financial Industry Regulatory Authority, Inc.

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 period from August 22, 2012 (inception) to December 31, 2012 included in this prospectus have been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report appearing herein. 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.
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. (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, and for the period from August 22, 2012 (inception) to December 31, 2012. 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, and the period from August 22, 2012 (inception) to December 31, 2012, in conformity with accounting principles generally accepted in the United States of America.

/s/ DELOITTE & TOUCHE LLP

San Jose, CA
April 9, 2014 (July 10, 2014 as to the effect of the reverse stock split described in the first paragraph of Note 2 and September 26, 2014 as to the effect of the adoption of a new accounting standard and removal of development stage company disclosures as described in the Recent Accounting Pronouncements section of Note 2.)

ATARA BIOTHERAPEUTICS, INC.
Combined and Consolidated Balance Sheets

	December 31, 2012	December 31, 2013	June 30, 2014 (unaudited)	Pro forma June 30, 2014 (Note 2) (unaudited)
	(In thousands, except share and per share information)			
Assets				
Current assets				
Cash and cash equivalents	$ 4,207	$ 51,615	$ 31,779	$ 31,779
Short-term available-for-sale investments	—	—	24,719	24,719
Prepaid expenses and other current assets	35	193	587	587
Total current assets	4,242	51,808	57,085	57,085
Property and equipment, net	9	8	11	11
Other assets	39	12	1,407	1,407
Total assets	$ 4,290	$ 51,828	$ 58,503	$ 58,503
Liabilities, convertible preferred stock and stockholders' deficit				
Current liabilities:				
Accounts payable	$ 121	$ 606	$ 577	$ 577
Accrued compensation	51	331	359	359
Series A-1 convertible preferred shares issuable to Amgen	1,003	—	—	—
Income tax payable	7	155	63	63
Other accrued liabilities	120	432	1,102	1,102
Total current liabilities	1,302	1,524	2,101	2,101
Other long-term liabilities	4	230	183	179
Total liabilities	1,306	1,754	2,284	2,280
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 $52,000	—	38,414	51,895	—
Stockholders' deficit				
Common stock—$0.0001 par value, 7,461,537, 12,003,891 and 1,378,316 shares issued and outstanding as of December 31, 2012 and 2013 and June 30, 2014 (unaudited), respectively, actual; 13,739,907 shares issued and outstanding, proforma	1	1	—	1
Additional paid-in capital	382	2,200	6,090	84,477
Notes receivable from stockholder	—	(335)	—	—
Accumulated deficit	(4,110)	(12,883)	(24,443)	(28,255)
Total stockholders' equity (deficit)	(3,727)	(11,017)	(18,353)	56,223
Total liabilities, convertible preferred stock and stockholders' deficit	$ 4,290	$ 51,828	$ 58,503	$ 58,503

See accompanying notes.

ATARA BIOTHERAPEUTICS, INC.
Combined and Consolidated Statements of Operations and Comprehensive Loss

	Period from August 22, 2012 (Inception) to December 31, 2012	Year ended December 31, 2013	Six months ended June 30, 2013	Six months ended June 30, 2014
			(unaudited)	
	(In thousands, except share and per share information)			
Expenses:				
Research and development	$ 241	$ 4,306	$ 923	$ 5,091
Research and development costs paid to Amgen	—	553	—	1,066
In-process research and development acquired from Amgen	3,018	—	—	—
General and administrative	834	3,756	1,724	5,454
Total expense	4,093	8,615	2,647	11,611
Loss from operations	(4,093)	(8,615)	(2,647)	(11,611)
Interest income	—	12	6	29
Loss before provision for income taxes	(4,093)	(8,603)	(2,641)	(11,582)
Provision (benefit) for income taxes	17	170	40	(22)
Net loss and comprehensive loss	$ (4,110)	$ (8,773)	$ (2,681)	$ (11,560)
Net loss per common share:				
Basic and diluted net loss per common share	$ (5.60)	$ (9.08)	$ (3.06)	$ (8.89)
Weighted-average common shares outstanding used to calculate basic and diluted net loss per common share	733,294	965,825	876,814	1,300,393
Proforma net loss per common share:				
Basic and diluted proforma net loss per common share		$ (1.28)		$ (0.85)
Weighted average common shares outstanding used to compute pro forma net loss per common share		6,870,743		13,677,230

See accompanying notes.

ATARA BIOTHERAPEUTICS, INC.
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 Deficit	Total Stockholders' Deficit
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount				
Balance at inception (August 22, 2012)	—	$ —	—	$ —	—	$ —	—	$ —	$ —	$ —	$ —	$ —
Issuance of common stock for cash	—	—	—	—	—	—	7,231	1	90	—	—	91
Issuance of Series A preferred stock for cash, net of offering costs of $54	11,538	4,946	—	—	—	—	—	—	—	—	—	—
Issuance of Series A-1 preferred stock for license fee to Amgen	—	—	3,532	1,765	—	—	—	—	—	—	—	—
Issuance of common stock upon vesting of stock awards	—	—	—	—	—	—	231	—	—	—	—	—
Stock-based compensation expense	—	—	—	—	—	—	—	—	292	—	—	292
Net loss	—	—	—	—	—	—	—	—	—	—	(4,110)	(4,110)
Balance at December 31, 2012	11,538	4,946	3,532	1,765	—	—	7,462	1	382	—	(4,110)	(3,727)
Issuance of common stock for cash, net of offering costs of $1	—	—	—	—	—	—	615	—	—	—	—	—
Issuance of Series A preferred stock for cash, net of offering costs of $124	34,818	14,963	—	—	—	—	—	—	—	—	—	—
Issuance of Series A-1 preferred stock for license fee to Amgen	—	—	2,006	1,003	—	—	—	—	—	—	—	—
Issuance of Series B preferred stock for cash, net of offering costs of $86	—	—	—	—	43,529	38,414	—	—	—	—	—	—
Notes receivable from stockholder	—	—	—	—	—	—	—	—	—	(331)	—	(331)

ATARA BIOTHERAPEUTICS, INC.
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 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	—	—	—	—	—	—	3,927	—	105	—	—	105
Stock-based compensation expense	—	—	—	—	—	—	—	—	1,713	—	—	1,713
Net loss	—	—	—	—	—	—	—	—	—	—	(8,773)	(8,773)
Balance at December 31, 2013	46,356	19,909	5,538	2,768	43,529	38,414	12,004	1	2,200	(335)	(12,883)	(11,017)
Issuance of Series B preferred stock, net of offering costs of $19 (unaudited)	—	—	—	—	15,263	13,481	—	—	—	—	—	—
Repayment of notes receivable from stockholder (unaudited)	—	—	—	—	—	—	—	—	—	337	—	337
Interest income accrued on notes receivable from stockholder (unaudited)	—	—	—	—	—	—	—	—	—	(2)	—	(2)
Issuance of common stock upon vesting of stock awards (unaudited)	—	—	—	—	—	—	645	—	20	—	—	20
Recapitalization (Note 2) (unaudited)	(41,205)	—	(4,923)	—	(52,260)	—	(11,346)	(1)	1	—	—	—
Issuance of common stock upon vesting of stock awards—post Recapitalization (unaudited)	—	—	—	—	—	—	75	—	25	—	—	25
Stock-based compensation expense (unaudited)	—	—	—	—	—	—	—	—	3,844	—	—	3,844
Net loss (unaudited)	—	—	—	—	—	—	—	—	—	—	(11,560)	(11,560)
Balance at June 30, 2014 (unaudited)	5,151	$19,909	615	$ 2,768	6,532	$51,895	1,378	$ —	$ 6,090	$ —	$ (24,443)	$ (18,353)

See accompanying notes.

ATARA BIOTHERAPEUTICS, INC.
Combined and Consolidated Statements of Cash Flows

	Period from August 22, 2012 (Inception) to December 31, 2012	Year ended December 31, 2013	Six months ended June 30, 2013	Six months ended June 30, 2014
		(In thousands)	(unaudited)	
Operating activities				
Net loss	$ (4,110)	$ (8,773)	$ (2,681)	$(11,560)
Adjustments to reconcile net loss to net cash used in operating activities:				
In-process research and development acquired from Amgen	2,768	—	—	—
Depreciation expense	—	4	2	2
Investment premium amortization, net	—	—	—	138
Stock-based compensation expense	292	1,713	677	3,844
Interest accrued on notes receivable from stockholder	—	(4)	(2)	(2)
Changes in operating assets and liabilities:				
Other assets	(39)	27	(2)	1
Prepaid expenses and other current assets	(35)	(158)	(381)	(264)
Accounts payable	121	485	358	(29)
Income tax payable	7	148	34	(92)
Other accrued liabilities	120	312	98	355
Accrued compensation	51	280	109	28
Net cash used in operating activities	(825)	(5,966)	(1,788)	(7,579)
Investing activities				
Purchase of short-term investments	—	—	—	(24,987)
Purchase of property and equipment	(9)	(3)	(3)	(5)
Net cash used in investing activities	(9)	(3)	(3)	(24,992)
Financing activities				
Proceeds from sale of common stock	91	—	—	—
Repayment of notes receivable from stockholder	—	—	—	337
Proceeds from sale of unvested restricted stock	4	—	—	—
Proceeds from sale of convertible preferred stock	5,000	53,587	15,088	13,500
Offering costs incurred in connection with sale of convertible preferred stock	(54)	(210)	(125)	(19)
Offering costs incurred in anticipation of initial public filing	—	—	—	(1,083)
Net cash provided by financing activities	5,041	53,377	14,963	12,735
Increase (decrease) in cash and cash equivalents	4,207	47,408	13,172	(19,836)
Cash and cash equivalents-beginning of period	—	4,207	4,207	51,615
Cash and cash equivalents-end of period	$ 4,207	$ 51,615	$17,379	$ 31,779
Non-cash financing activities				
Issuance of Series A-1 convertible preferred stock to Amgen in exchange for license	$ 1,765	$ 1,003	$ 1,003	$ —
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	$ 1	$ 45
Change in other long-term liabilities related to non-vested stock awards	$ —	$ 226	$ 331	$ (45)
Restricted stock issued to related party in exchange for notes receivable	$ —	$ 331	$ 331	$ —
Obligations incurred for offering costs in anticipation of initial public filing	$ —	$ —	$ —	$ 313
Supplemental cash flow disclosure—Cash paid for taxes	$ 9	$ 22	$ 6	$ 70

See accompanying notes.

ATARA BIOTHERAPEUTICS, INC.
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 June 30, 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

All share and per-share amounts presented in the combined financial statements for the period from inception on August 22, 2012 through December 31, 2012 and for the year ended December 31, 2013 and in the combined and consolidated financial statements for the six months ended June 30, 2013 and 2014 and in the notes hereto have been revised to reflect a 1.3-to-1 reverse stock split which became effective July 9, 2014.

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. 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 BIOTHERAPEUTICS, INC.
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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.

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, restricted stock units ("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	46,356,342	5,150,699
Series A-1 convertible preferred stock	5,538,462	615,384
Series B convertible preferred stock	58,791,996	6,532,432
	110,686,800	12,298,515
Common stock	12,648,601	1,302,835

Unaudited Interim Financial Statements

The unaudited interim financial statements as of June 30, 2014 and for the six months ended June 30, 2013 and 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 June 30, 2014 and its results of operations and cash flows for the six months ended June 30, 2013 and 2014. The results of operations and cash flows for the six months ended June 30, 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.

Unaudited Pro Forma Consolidated Balance Sheet

The unaudited pro forma consolidated balance sheet as of June 30, 2014 has been prepared giving effect to the vesting of 63,076 shares of restricted common stock and the automatic conversion of all outstanding shares of preferred stock as of June 30, 2014 into 12,298,515 shares of our common stock upon the closing of this offering. The unaudited pro forma balance sheet also gives effect to approximately $3.8 million of stock-based compensation expense associated with restricted common

ATARA BIOTHERAPEUTICS, INC.
Notes to Combined and Consolidated Financial Statements

stock awards and RSUs, which the Company expects to record upon completion of the Company's initial public offering. This amount relates to restricted common stock awards and RSUs for which both the service condition was satisfied as of June 30, 2014, and the performance condition would become probable as of June 30, 2014, assuming the completion of an initial public offering as of that day. Refer to Note 7 for further details. This pro forma adjustment related to stock-based compensation expense has been reflected as an increase to additional paid-in capital and accumulated deficit. Approximately 144,256 RSUs vested as of June 30, 2014 have not been included in the pro forma balance sheet disclosure of shares outstanding as the settlement of these shares is taking place subsequent to the effective date of the initial public offering. Payroll tax expenses and other withholding obligations have not been included in the pro forma adjustments. RSU holders generally will incur taxable income based upon the value of the shares on the date they are settled and the Company is required to withhold taxes on such value at applicable minimum statutory rates. The Company currently expects that the average of these withholding rates will be approximately 40%. The Company is unable to quantify these obligations as of June 30, 2014 and will remain unable to quantify this amount until the settlement of the RSUs as the withholding obligations will be based on the value of the shares on that date.

Liquidity

We have incurred significant operating losses since inception and have relied on private equity financings to fund operations. At June 30, 2014, we had an accumulated deficit of $24.4 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 June 30, 2014 will be sufficient to fund our current operating plan through the end of 2015.

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.

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 six months ended June 30, 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 June 30, 2014 (unaudited):			
Cash equivalents:			
Money market funds	$31,779	$31,779	$ —
Short-term Investments:			
Corporate bonds	$20,526	$ —	$ 20,526
Commercial paper	$ 4,193	$ —	$ 4,193

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. Corporate bonds and commercial paper are valued primarily using market prices of comparable securities, bid/ask quotes, interest rate yields and prepayment spreads and are included in Level 2.

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 June 30, 2014 (unaudited):				
Short-term investments:				
Corporate bonds	$20,525	$ 7	$ (6)	$20,526
Commercial paper	4,193	—	—	4,193
Total short-term investments	$24,718	$ 7	$ (6)	$24,719

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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 June 30, 2014 (unaudited):		
Maturing within one year	$21,745	$21,744
Maturing in one to five years	2,973	2,975
Short-term available for sale investments	$24,718	$24,719

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.

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 5,538,462 shares of Series A-1 convertible preferred stock (615,384 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

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$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 RSUs that may be settled in shares of our common stock, 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 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, March 31, 2014 and June 26, 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.

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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 and June 26, 2014 valuations, 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 and June 26, 2014 valuations, 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 for March 31, 2014, 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.

Under the hybrid method for June 26, 2014, 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 one month, the second scenario assumed we would complete an initial public offering within 3 months and the third scenario assumed we would complete an initial public offering within 9 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:

	Combined Common Stock Value[1]	Volatility[2]	Risk-free Rate	Years to Exit	Discount for Lack of Marketability
December 31, 2012	$ 1.60	53.3%	0.28%	2.25	29.7%
March 5, 2013	$ 1.63	54.5%	0.25%	2.00	29.7%
November 25, 2013	$ 2.57	54.2%	0.26%	1.75	26.9%
January 8, 2014	$ 2.67	53.2%	0.32%	1.63	25.5%
March 31, 2014[3]	$ 8.59	56.0%	0.14%	1.03	21.8%
June 26, 2014[3]	$ 12.55	47.9%	0.04%	0.25	9.4%

(1) Common stock value is presented giving effect to the Recapitalization.

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Notes to Combined and Consolidated Financial Statements

(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.

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.

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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	Six months ended June 30,	
			2013	2014
			(unaudited)	
Convertible preferred stock	900,662	5,797,612	4,892,419	12,223,577
Unvested restricted common stock	326,146	790,216	781,161	738,276
	1,226,808	6,587,828	5,673,580	12,961,853

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Unaudited Pro Forma Net Loss per Share

Pro forma basic and diluted net loss per share were computed to give effect to the automatic conversion of Series A convertible preferred stock, Series A-1 convertible preferred stock, and Series B convertible preferred stock using the "if converted" method as though the conversion had occurred as of the beginning of the period or the original date of issuance, if later. In addition, the pro forma share amounts give effect to the Company's RSUs and restricted stock awards that have satisfied the service condition as of December 31, 2013 and June 30, 2014. These RSUs will vest and settle six months after the satisfaction of a qualifying event as further defined in Note 7. Stock-based compensation expense associated with the RSUs and restricted common stock awards is excluded from this pro forma presentation. If the qualifying event had occurred on June 30, 2014, the Company would have recorded $3.8 million of stock-based compensation expense related to these RSUs and restricted common stock awards.

	Year Ended December 31, 2013	Six Months Ended June 30, 2014
		(Unaudited)
Net loss	$ (8,773)	$ (11,560)
Basic and diluted shares:		
Weighted-average shares used to compute basic and diluted net loss per share	965,825	1,300,393
Pro forma adjustment to reflect assumed conversion of preferred stock to occur upon completion of the Company's initial public offering	5,797,612	12,223,577
Pro forma adjustment to reflect assumed vesting of restricted stock units	44,871	90,184
Pro forma adjustment to reflect assumed vesting of restricted stock awards to occur upon completion of the Company's initial public offering	62,435	63,076
Weighted-average shares used to compute basic and diluted pro forma net loss per share	6,870,743	13,677,230
Pro forma net loss per share attributable to common stockholders:		
Basic and diluted	$ (1.28)	$ (0.85)

The following potential common shares were excluded from the calculation of pro forma diluted net loss per share because their effect would have been anti-dilutive for the periods presented (in thousands):

	Year Ended December 31, 2013	Six months ended June 30, 2014
	(Unaudited)	
Unvested restricted common stock	727,781	675,200
Unvested restricted stock units	199,163	658,792
	926,944	1,333,992

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Recent Accounting Pronouncements

In July 2013, the Financial Accounting Standards Board (FASB) 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.

In August 2014, the FASB issued a new accounting standard to provide guidance on the presentation of management's plans, when conditions or events raise substantial doubt about the entity's ability to continue as a going concern within one year after the date that the financial statements are issued. The new standard is effective for fiscal years ending after December 15, 2016. The adoption of this standard is not expected to have a material impact on the Company's financial statements.

In June 2014, the FASB amended the definition of a development stage entity in the Master Glossary of the Accounting Standards Codification. The amendments simplified the financial reporting for development-stage companies by eliminating inception-to-date reporting requirements specific to development stage entities. The amendments also eliminated certain consolidation guidance, which may have caused companies with interests in entities in a development stage to identify more of them as variable interest entities and may change prior consolidation decisions. The revised guidance is effective for annual periods beginning after December 15, 2014; however we early adopted the guidance in the second quarter of 2014. The adoption of this guidance impacted our financial statement presentation, but did not have a material impact on the Company's financial position or results of operations and cash flows.

Subsequent Events

We evaluated subsequent events from December 31, 2013 through April 9, 2014 and from June 30, 2014 through September 26, 2014, the date when these combined and consolidated financial statements were available for issuance.

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 and the year ended December 31, 2013 was $246 and $3,577, respectively. Accumulated depreciation and amortization as of December 31, 2012 and 2013 was $246 and $3,823 respectively.

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Depreciation and amortization expense for the six months ended June 30, 2013 and 2014 was $1,684 and $2,349, respectively. Accumulated depreciation and amortization as of June 30, 2014 was $6,172.

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 5,538,462 shares of Series A-1 convertible preferred stock (1,846,154 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 3,531,774 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 2,006,688 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 5,653,059 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.

During the six months ended June 30, 2013, we made no purchases from Amgen. During the six months ended June 30, 2014, we purchased clinical services totalling $66,000 and made a milestone payment of $1,000,000 to Amgen. Both payments were recorded as research and development costs paid to Amgen for the six months ended June 30, 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 and the year ended December 31, 2013 was $8,250 and $57,553, respectively.

Rent expense for the six months ended June 30, 2013 and 2014 was $27,236 and $29,753, 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 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 June 30, 2014, there were no outstanding obligations due to Amgen. We made 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 six months ended June 30, 2013 and 2014, we incurred expenses of $482,475 and $394,710, 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 June 30, 2014.

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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	3,846,154	$ 574	3,846,154	$2,478	3,846,154	$1,894	11,538,462	$4,946
Series A-1 convertible preferred stock	1,177,258	365	1,177,258	864	1,177,258	536	3,531,774	1,765
	5,023,412	$ 939	5,023,412	$3,342	5,023,412	$2,430	15,070,236	$6,711
Authorized:								
Series A convertible preferred stock	13,076,923		13,076,923		13,076,923		39,230,769	
Series A-1 convertible preferred stock	1,846,154		1,846,154		1,846,154		5,538,462	
	14,923,077		14,923,077		14,923,077		44,769,231	

	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	15,452,114	$2,306	15,452,114	$ 9,963	15,452,114	$ 7,640	46,356,342	$19,909
Series A-1 convertible preferred stock	1,846,154	573	1,846,154	1,355	1,846,154	840	5,538,462	2,768
Series B convertible preferred stock	14,509,579	2,496	14,509,579	17,960	14,509,579	17,958	43,528,737	38,414
	31,807,847	$5,375	31,807,847	$29,278	31,807,847	$26,438	95,423,541	$61,091
Authorized:								
Series A convertible preferred stock	15,452,114		15,452,114		15,452,114		46,356,342	
Series A-1 convertible preferred stock	1,846,154		1,846,154		1,846,154		5,538,462	
Series B convertible preferred stock	16,960,012		16,960,012		16,960,012		50,880,036	
	34,258,280		34,258,280		34,258,280		102,774,840	

	As of June 30, 2014 (unaudited)		
	Authorized Shares	Outstanding Shares	Carrying Value
		(dollars in thousands)	
Series A convertible preferred stock	5,150,699	5,150,699	$19,909
Series A-1 convertible preferred stock	615,384	615,384	2,768
Series B convertible preferred stock	6,532,432	6,532,432	51,895
	12,298,515	12,298,515	$74,572

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Original issuance prices of Series A convertible preferred stock, prior to issuance costs, were $0.152, $0.650 and $0.498 per share, for Nina, Pinta and Santa Maria, respectively, or $1.30 per share on a combined basis. Original issuance prices of Series B convertible preferred stock, prior to issuance costs were $0.173, $1.240 and $1.240 per share, for Nina, Pinta and Santa Maria, respectively, or $2.653 per share on a combined basis. Amgen contributed licenses for issued Series A-1 convertible preferred stock with fair values of $0.310, $0.734 and $0.455 per share for Nina, Pinta and Santa Maria, respectively, or $1.500 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 $3.900, $4.875, and $7.960 for Series A, Series A-1, and Series B, respectively.

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 $52,000,000 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 June 30, 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 $52,000,000 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.

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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.

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.

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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	2,384,615	$ —	2,384,615	$ —	2,384,615	$ 1	307,692	$ —	7,461,537	$ 1
Additional paid-in capital	—	57	—	190	—	135	—	—	—	382
	2,384,615	$ 57	2,384,615	$ 190	2,384,615	$ 136	307,692	$ —	7,461,537	$ 383
Authorized	28,461,538		28,461,538		28,461,538		769,230		86,153,844	

	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	3,693,605	$ —	3,693,605	$ —	3,693,605	$ 1	923,076	$ —	12,003,891	$ 1
Additional paid-in capital	—	147	—	1,017	—	1,036	—	—	—	2,200
	3,693,605	$ 147	3,693,605	$ 1,017	3,693,605	$ 1,037	923,076	$ —	12,003,891	$ 2,201
Authorized	53,846,153		53,846,153		53,846,153		923,076		162,461,535	

Common stock issued and outstanding during the six months ended June 30, 2014 was as follows:

	Authorized	Outstanding
As of December 31, 2013	162,461,535	12,003,891
Issuance of common stock upon vesting of awards	—	644,710
Recapitalization:		
Cancellation of Atara shares	(923,076)	(923,076)
Tender of Nina, Pinta and Santa Maria shares	(161,538,459)	(11,725,525)
Issuance of Atara shares	17,948,717	1,302,835
Issuance of common stock upon vesting of awards—post Recapitalization	—	75,481
As of June 30, 2014 (unaudited)	17,948,717	1,378,316

We have reserved the following shares of common stock for issuance (presented on a combined basis as of December 31, 2013):

	December 31, 2013	June 30, 2014[1]
		(unaudited)
Conversion of Series A convertible preferred stock	46,356,342	5,150,699
Conversion of Series A-1 convertible preferred stock	5,538,462	615,384
Conversion of Series B convertible preferred stock	43,528,737	6,532,432
Common stock available for grant of stock awards	17,021,923	1,286,349
Common stock issuable for RSUs outstanding and non-vested restricted stock	10,458,793	1,619,949
	122,904,257	15,204,813

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(1) The share amounts presented as of June 30, 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 9,595,384 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. 7,996,153 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. 1,599,231 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.

As of June 30, 2014, there was $1,957,016 of unrecognized stock-based compensation expense related to this restricted common stock. Assuming an initial public offering had occurred on June 30, 2014, $508,962 of this stock-based compensation would have been recognized in our statement of operations and comprehensive loss for the six months ended June 30, 2014 and $1,448,054 would have been recognized over the remaining service periods through 2016.

In March 2013, an Atara employee purchased 2,423,074 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: 2,319,228 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 103,846 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 June 30, 2014, there was $388,193 of unrecognized stock-based compensation expense related to this restricted common stock. Assuming an initial public offering had occurred on June 30, 2014, $28,319 of this stock-based compensation expense would have been recognized in our

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statement of operations and comprehensive loss for the six months ended June 30, 2014 and $359,874 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. As of June 30, 2014, the outstanding balance of these notes had been 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, 4,157,739 shares had vested and are classified as equity. Restricted stock shares not vested at December 31, 2013 totaled 7,860,719 shares and are expected to vest over three years.

Prior to the Recapitalization, 4,802,450 shares had vested and were classified as equity. On March 31, 2014, these shares were exchanged for 533,605 shares of Atara common stock. Restricted shares not vested at March 31, 2014 totalled 7,216,006 and these shares were exchanged for 801,778 shares of Atara restricted common stock. At June 30, 2014, restricted shares not vested totalled 726,298 shares.

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	Six months ended June 30, 2013 (unaudited)	Six months ended June 30, 2014 (unaudited)
		(in thousands)		
Research and development	$ —	$ 251	$ 113	$ 832
General and administrative	292	1,462	564	3,012
	$ 292	$ 1,713	$ 677	$ 3,844

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.

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

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under the plans was 17,021,923 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.

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 June 30, 2014 is as follows:

	Combined Number of Units/Awards	Weighted-average Grant Date Fair Value
Unvested at December 31, 2012	—	$ —
Granted—Restricted stock units	2,598,074	$ 0.189
Granted—Restricted stock awards	2,423,074	$ 0.045
Vested—Restricted stock awards	(759,374)	$ 0.045
Unvested at December 31, 2013	4,261,774	$ 0.133
Granted—Restricted stock units (unaudited)	5,375,742	$ 0.606
Vested—Restricted stock awards (unaudited)	(144,951)	$ 0.045
Recapitalization (Note 2) (unaudited)	(8,437,856)	
Granted—Restricted stock units (unaudited)[1]	7,692	$12.545
Vested—Restricted stock awards (unaudited)[1]	(19,952)	$ 0.404
Unvested at June 30, 2014 (unaudited)	1,042,449	$ 3.780

(1) Awards granted and vested post Recapitalization.

Through June 30, 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 June 30, 2014. As of June 30, 2014, there was approximately $7,846,269 of unrecognized stock-based compensation expense related to nonvested RSUs. Assuming an initial public offering had occurred on June 30, 2014, $3,274,365 of this stock-based compensation expense would have been recognized in our

statement of operations and comprehensive loss for the six months ended June 30, 2014 and $4,571,904 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 1,286,349 shares of common stock as of June 30, 2014. This aggregate amount includes the remaining shares that were previously available for issuance under the existing plans (1,294,041 shares of common stock, after giving effect to the nine-for-one exchange).

During three months ended June 30, 2014, our board of directors amended and restated our 2014 EIP, which was approved by our stockholders in June 2014. Our 2014 EIP, as amended and restated, becomes effective upon the pricing of an underwritten initial public offering ("IPO") of our common stock. The maximum of number of shares of our common stock that may be issued pursuant to stock awards under the 2014 EIP will increase by 1,076,923 shares to a total of 3,526,153 shares. Additionally, the number of shares of our common stock reserved for issuance pursuant to stock awards under our 2014 EIP 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 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 Incentive Stock Options under the 2014 EIP increased to 11,538,461 shares.

2014 Employee Stock Purchase Plan

We adopted the 2014 Employee Stock Purchase Plan (the "2014 ESPP") in May 2014, and our stockholders approved the 2014 ESPP in June 2014. The 2014 ESPP becomes effective upon the closing of an IPO of our common stock. The 2014 ESPP will be administered by our board of directors and the Compensation Committee of our board of directors. The maximum number of shares of our common stock that may be issued under the 2014 ESPP is 230,769 shares. Additionally, the number of shares of our common stock reserved for issuance under our ESPP will automatically increase each year for a period of up to ten years, beginning on January 1, 2015 and continuing through and ending on January 1, 2024, by the lesser of (i) 1% of the total number of shares of our capital stock outstanding on the December 31 of the preceding calendar year, (ii) 230,769 shares of our common stock, or (iii) a lower number as determined by our board of directors.

ATARA BIOTHERAPEUTICS, INC.
Notes to Combined and Consolidated Financial Statements

8. Income Taxes

For the six months ended June 30, 2013 and 2014, we recorded income tax expense of $39,549 and tax benefit of $21,591, respectively. These tax expense and benefit amounts reflect the combined income tax obligations prior to our Recapitalization.

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
	(in thousands)	
Current:		
Federal	$ 14	$ 153
State	3	17
Total taxes	$ 17	$ 170

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
Federal income taxes at statutory rate	34.0%	34.0%
Nondeductible stock compensation	(1.4%)	(6.8%)
State income tax, net of federal benefit	(0.1%)	(0.3%)
Other	—	(0.1%)
Valuation allowance	(32.9%)	(28.8%)
Effective tax rate	(0.4%)	(2.0%)

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	$ —	$ —

ATARA BIOTHERAPEUTICS, INC.
Notes to Combined and Consolidated Financial Statements

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.

9. Subsequent Events

Exclusive Option Agreement

In September 2014, we entered into an exclusive option agreement with Memorial Sloan Kettering Cancer Center (MSK) under which we have the right to acquire (pursuant to a negotiated form of license agreement) the exclusive, worldwide license rights to the three clinical stage T-cell

therapies of MSK. The initial option period is for twelve months, with extensions available to extend the term up to 27 months at the option of Atara. Under the terms of the option agreement, we are obligated to use reasonable efforts to prepare a request to be submitted to the FDA regarding a meeting to discuss pivotal trials for the three clinical stage T-cell therapies. In exchange for the exclusive option, we paid MSK $1.25 million in cash and issued 59,761 shares of our common stock to MSK. We are also obligated to pay MSK an additional amount up to $630,000 if we extend the option period and we have agreed to collaborate on further research to develop additional cellular therapies.

If we exercise the option and enter into the license agreement with MSK, we will be obligated under the license agreement to pay to MSK an upfront cash payment of $4.5 million and additional payments of up to $33.0 million based on a license fee and achievement of specified development, regulatory and sales-related milestones, and to make royalty payments based on sales of the T-cell therapy products.

Facility Lease

In September 2014, we entered into a non-cancellable sublease agreement for our corporate headquarters. The sublease term begins upon receipt of consent from the master landlord and ends on January 31, 2017. Total commitments over the term of the sublease are estimated to be approximately $0.4 million.

5,000,000 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	$ 11,850
FINRA filing fee	14,300
Nasdaq initial listing fee	125,000
Legal fees and expenses	1,476,833
Accounting fees and expenses	800,000
Printing and engraving expenses	200,000
Transfer agent and registrar fees and expenses	7,500
Miscellaneous fees and expenses	364,517
Total	$3,000,000

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 (share and per share amounts give effect to a 1.3-to-1 reverse split of our outstanding common stock and preferred that was effected on July 9, 2014):

(a) We issued 923,076 shares of common stock for a price of $0.0013 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 2,104,613 shares of common stock and 12,298,515 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.;

(c) We issued RSUs for 893,651 shares of common stock and options to purchase 554,959 shares of common stock to our employees, directors and consultants; and

(d) We issued 59,761 shares of common stock to Memorial Sloan Kettering Cancer Center in connection with the execution of our exclusive option agreement in September 2014.

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*	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*	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*	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.

Exhibit No.	Description of Exhibit
10.3*	Form of Restricted Stock Unit Agreement and Restricted Stock Unit Grant Notice under the 2014 Equity Incentive Plan.
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.
10.28	Sublease Agreement, by and between Atara Biotherapeutics, Inc. and Accesia, Inc., dated as of September 11, 2014.
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.

* Previously filed.
† 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 26th day of September, 2014.

ATARA BIOTHERAPEUTICS, INC.

By: /s/ Isaac E. Ciechanover
Isaac E. Ciechanover
Chief Executive Officer

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)*	September 26, 2014
/s/ John F. McGrath, Jr. John F. McGrath, Jr.	Chief Financial Officer *(principal financial and accounting officer)*	September 26, 2014
* Matthew K. Fust	Director	September 26, 2014
* Carol Gallagher, Pharm.D.	Director	September 26, 2014
* Joel S. Marcus	Director	September 26, 2014
* Beth Seidenberg, M.D.	Director	September 26, 2014
* Eckard Weber, M.D.	Director	September 26, 2014

*By: /s/ Isaac E. Ciechanover
Isaac E. Ciechanover
Attorney-in-fact

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10.27*	Consent to Sublease, by and among Atara Biotherapeutics, Inc., XDX, Inc. and BMR-Bayshore Boulevard LLC, dated as of January 14, 2013.
10.28	Sublease Agreement, by and between Atara Biotherapeutics, Inc. and Accesia, Inc., dated as of September 11, 2014.
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.

* Previously filed.

† The registrant has requested confidential treatment for a portion of this exhibit.

Exhibit 10.28

Execution Version

SUBLEASE AGREEMENT

This Sublease Agreement (this "**Sublease**") is dated as of September 11, 2014, by and between **Accesia, Inc.**, a Virginia corporation (hereinafter referred to as "**Sublandlord**"), and **Atara Biotherapeutics, Inc.**, a Delaware corporation (hereinafter referred to as "**Subtenant**").

I. BACKGROUND

1.01 Pursuant to that certain Office Lease dated November 13, 2012, by and between DWF III Gateway, LLC, a Delaware limited liability company, as landlord ("**Landlord**"), and Sublandlord, as tenant, (the "**Lease**"), Sublandlord leases approximately 7,038 square feet of Rentable Area in Suite 200 (the "**Premises**") of that certain office building located at 701 Gateway Boulevard, South San Francisco, CA (the "**Building**"). All capitalized terms used but not defined herein shall have the meanings given to such terms in the Lease.

1.02 Subtenant has requested and proposed to Sublandlord, and Sublandlord has agreed, that Subtenant be permitted to sublease the Premises, as more particularly identified on Exhibit A attached hereto and incorporated by reference into this Sublease, on the mutual terms and conditions set forth in this Sublease.

NOW, THEREFORE, in consideration of the premises and the mutual covenants herein contained, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Sublandlord and Subtenant hereby agree as follows:

II. SUBLEASE TERMS

2.01 Grant of Premises.

(a) Sublandlord hereby subleases to Subtenant, and Subtenant hereby subleases from Sublandlord, the Premises for the period of time and otherwise on the terms and conditions set forth in this Sublease. Sublandlord and Subtenant hereby agree and stipulate that for all purposes of this Sublease, including but not limited to the calculation of Rent, the Premises shall be deemed to comprise seven thousand and thirty eight (7,038) square feet of Rentable Area.

(b) Subtenant shall have the exclusive right to utilize all existing filing cabinets, furniture, fixtures, cables, wiring, and equipment currently located within Premises which Sublandlord has left therein (collectively, "**Sublandlord's FF&E**") as set forth on Exhibit B hereto, at no cost during the Sublease Term (as defined below). Subtenant acknowledges and agrees that Sublandlord's FF&E is owned by Sublandlord and is being provided solely for Subtenant's use and enjoyment during the Sublease Term. Subtenant represents and warrants that it has examined Sublandlord's FF&E and agrees to accept it in its then "as is" and "where-is" condition and that Sublandlord has no obligation to refinish, maintain, repair or replace any of Sublandlord's FF&E. Sublandlord has not made and does not make any representations or warranties as to the condition, usability or any other matter or condition affecting Sublandlord's FF&E and shall have no responsibility with respect thereto. Sublandlord and Subtenant acknowledge and agree that Subtenant will supply its own computers, servers, telephone equipment and printers. Subtenant shall purchase the

Sublandlord's FF&E at the end of the Sublease Term at a cost of one dollar ($1.00) and agrees to remove all of Sublandlord's FF&E from the Premises as required under Section 2.18 hereof. Notwithstanding anything to the contrary above, Subtenant hereby acknowledges and agrees that certain of the existing cabinets, furniture, fixtures, and equipment currently located within the conference room of the Premises are owned by the Landlord and shall not be subject to the rights granted to Subtenant or the obligations of Subtenant to remove such furniture, fixtures and equipment under this Section 2.01(b).

(c) Subtenant shall also be allowed to use any interior or exterior areas of the Building made available by Landlord from time to time for Subtenant's use or for the use of all tenants (collectively, the "**Common Areas**") on the terms and conditions set forth in the Lease.

2.02 Term of Sublease.

(a) The term of this Sublease (the "**Sublease Term**") shall commence on the the date that Landlord has issued its written consent to this Sublease (the "**Commencement Date**"), which consent Sublandlord shall use good faith commercially reasonable efforts to obtain from Landlord prior to September 15, 2014. Unless sooner terminated as provided in this Sublease, the Sublease Term shall run coterminous with the Lease and expire on January 31, 2017 (the "**Expiration Date**").

(b) If for any reason Sublandlord cannot deliver possession of the Premises to Subtenant on or before September 15, 2014 as currently desired by the parties, Sublandlord shall not be subject to any liability therefor, nor shall Sublandlord be in default hereunder nor shall such failure affect the validity of this Sublease, and Subtenant agrees to accept possession of the Premises at such time as Sublandlord is able to deliver the same, which date shall then be deemed the Commencement Date provided that Landlord has issued its written consent to this Sublease. Notwithstanding the foregoing, in the event that the Commencement Date does not occur by October 31, 2014, then Subtenant shall be entitled by notice in writing to Sublandlord within ten (10) days thereafter to cancel this Sublease, in which event the parties shall be discharged from all obligations hereunder.

2.03 Rent.

(a) Commencing on the Commencement Date and on the first (1st) day of each month thereafter and continuing for the first year of the Sublease Term, Subtenant shall pay to Sublandlord, for the use of Premises, annual "**Base Rent**" at a rate of Two Dollars and Seventeen Cents ($2.17) per square foot of Rentable Area, for a total monthly amount of Fifteen Thousand Two Hundred Seventy Two Dollars and Forty Six Cents ($15,272.46). Beginning on the first anniversary of the Commencement Date and continuing on each anniversary thereafter throughout the Sublease Term, the Base Rent shall increase annually at a rate equal to an additional ten cents ($0.10) per rentable square foot as follows: (i) Subtenant shall pay Two Dollars and Twenty Seven Cents ($2.27) per square foot of Rentable Area, for a total monthly amount of Fifteen Thousand Nine Hundred Seventy Six Dollars and Twenty Six Cents ($15,976.26), for the period beginning on the first anniversary of the Commencement Date up to and until the second anniversary of the Commencement Date; and (ii) Subtenant shall pay Two Dollars and Thirty Seven Cents ($2.37) per square foot of Rentable Area, for a total monthly

amount of Sixteen Thousand Six Hundred Eighty Dollars and Six Cents ($16,680.06), for the period beginning on the second anniversary of the Commencement Date up to and until the Expiration Date.

(b) Base Year Increases.

a. For purposes of this Section 2.03(b), the following terms shall have the following meanings:

"**Base Operating Costs**" shall have the meaning given to such term in the Lease; provided that the term "Base Year," as used therein shall mean the 2015 calendar year.

"**Base Taxes**" means the Taxes for the 2015 calendar year.

"**Base Year Costs**" means Base Operating Costs and Base Taxes for the 2015 calendar year.

"**Operating Costs**" shall have the meaning given to such term in the Lease.

"**Proportionate Share**" shall mean 100% of the Sublandlord's Proportionate Share under Section 1.13 of the Lease.

"**Sublease Year**" shall mean the calendar year, or portion thereof, following the Commencement Date and during the Sublease Term, the whole or any part of which period is included within the Sublease Term.

"**Taxes**" shall have the meaning given to such term in the Lease.

b. If the Operating Costs and Taxes for any Sublease Year, calculated on the basis of the greater of (i) actual Operating Costs and Taxes; or (ii) as if the Building were at least one hundred percent (100%) occupied and operational for the whole of such Sublease Year, are more than the applicable Base Year Costs for Base Operating Costs and Base Taxes as set forth in Section 2.03(a) above (which Base Year Costs shall be calculated separately for Operating Costs and Taxes), Subtenant shall pay to Sublandlord its Proportionate Share of any such increase in Operating Costs and/or Taxes, as the case may be, as "**Additional Rent**" as hereinafter provided.

c. If any Sublease Year of less than twelve (12) months is included within the Sublease Term, the amounts payable by Subtenant for such period shall be prorated on a per diem basis based on the actual number of days in the year.

d. Subtenant shall pay monthly installments of Subtenant's Proportionate Share of any Additional Rent owed to Sublandlord under this Section 2.03 on the first day of each month, in amounts specified in good faith by Sublandlord from time to time (and based on the estimates received from

Landlord), which, by the end of each Sublease Year (or by the Expiration Date, if earlier), will total Sublandlord's estimate of Subtenant's Proportionate Share of any Additional Rent paid for such Sublease Year. As soon as is reasonably practicable after the end of each Sublease Year during which Subtenant paid any Additional Rent based on Sublandlord's estimates as provided above, Sublandlord will furnish Subtenant with the Annual Statement Sublandlord receives from Landlord under Section 6.3(b) of the Lease. Subtenant acknowledges and agrees that the Additional Rent due each month is subject to change throughout the Sublease Term. The Additional Rent shall be adjusted pursuant to the procedure set forth in Section 6.3(c) of the Lease at the end of each Lease Year under the Lease, and Subtenant shall promptly pay its share of any Additional Rent owed or receive a credit or reimbursement for its share of any overage, as provided in Section 6.3(c) of the Lease.

(c) Base Rent, Additional Rent and all other amounts payable by Subtenant hereunder (collectively, "**Rent**"), shall be paid by Subtenant in United States legal tender, without any set-off or deduction whatsoever, to Sublandlord at the following address: Accesia, Inc. c/o The Phillips Organization, 3924 Cleveland Avenue NW, Canton, Ohio 44709, or to such other party or such other place as Sublandlord may from to time designate in writing to Subtenant.

(d) Base Rent for each month during the Sublease Term shall be due and payable in advance, on or before the first (1st) day of each month, without demand and without any set-off or deduction whatsoever. If Base Rent, Additional Rent, or any other sums payable by Subtenant to Sublandlord hereunder are not paid by Subtenant when such payment is due, Subtenant shall pay Sublandlord interest and late charges on all overdue amounts as provided in Sections 33.8 and 33.9 of the Lease. Notwithstanding the foregoing, Sublandlord will not assess a late charge until Sublandlord has given written notice of such late payment for the first late payment in any twelve (12) month period and after Subtenant has not cured such late payment within three (3) business days from receipt of such notice. No other notices will be required during the following twelve (12) months for a late charge to be incurred. Rent for any partial month during the Sublease Term shall be prorated by dividing the number of days in such month that fall within the Sublease Term by the total number of calendar days in such month. Concurrently with the execution of this Sublease, Subtenant shall pay Sublandlord Base Rent for the first month of this Sublease.

2.04 Sublease is Subject to Lease.

(a) It is understood and agreed that the interest of Sublandlord under this Sublease and in the Premises is solely as tenant under the Lease, and that this Sublease and Subtenant's rights and Sublandlord's obligations hereunder are subject and subordinate to the Lease in all respects. Sublandlord shall not voluntarily terminate the Lease except pursuant to a right of termination arising out of casualty or condemnation expressly set forth in the Lease, and Sublandlord shall not amend the Lease in a manner adverse to Subtenant in any material respect. In the event that the Lease shall be terminated for any reason, this Sublease shall terminate and Sublandlord shall have no obligation or liability to Subtenant, whether for the corresponding termination of this Sublease, the dispossession of Subtenant from Premises, or otherwise, unless

such termination (a) shall have arisen out of a default under the Lease by Sublandlord not arising out of a default hereunder by Subtenant or (b) shall have been effected by Sublandlord in violation of this Section 2.04(a). Subtenant has received a copy of the Lease and hereby represents and warrants that it has read it and understands all of the provisions therein.

(b) If any term or provision of this Sublease conflicts with any term or provision of the Lease, the terms of this Sublease shall govern with respect to Sublandlord and Subtenant only. All of the terms and conditions contained in the Lease as they may apply to Premises and that constitute obligations of the tenant under the Lease are incorporated herein by this reference and shall be terms and conditions of this Sublease (with each reference therein to "Landlord" "Tenant", "Leased Premises" and "Lease" to be deemed to refer to Sublandlord, Subtenant, the Premises and Sublease respectively, as appropriate), except for the following provisions of the Lease: Article 1 (except Sections 1.4, 1.5, 1.6 and 1.16 which shall continue to apply), Sections 4.2, 4.3, 4.4, 4.5, Article 5, Sections 6.2, Article 8, Sections 14.4. 19.3, 19.5, 28.1, 33.7, 33.21, 33.25 and Exhibits C, D, F and G. The foregoing incorporation of the Lease, along with all of the terms and conditions set forth in this Sublease, shall constitute the complete terms and conditions of this Sublease (the provisions of the Lease which Subtenant shall be responsible for performing pursuant to the provisions of this Sublease being herein referred to as the "**Lease Provisions**"). Sublandlord expressly reserves all remedies reserved to Sublandlord, as tenant under the Lease, including, without limitation, the Lease Provisions.

(c) Notwithstanding anything to the contrary in the Lease Provisions, Subtenant shall not be required to disclose any financial statements to Sublandlord or Landlord unless and until such party executes and delivers a commercially reasonable non-disclosure agreement.

(d) Notwithstanding anything to the contrary in the Lease Provisions, upon termination of this Sublease, Subtenant agrees that it shall not remove from the Premises any of Landlord's furniture, fixtures or equipment, which shall remain the property of Landlord.

(e) Sublandlord shall afford Subtenant the benefit of the rights to the services and utilities which Landlord supplies to the Premises under the Lease (including, without limitation, the services contemplated by Sections 3.4 and 18.1 and Article 11); provided, however, that Sublandlord shall have no obligation or liability with respect to Landlord's performance or non-performance of any of Landlord's obligations under the Lease and the sole obligation of the Sublandlord shall be (i) to give notice to Landlord of any nonperformance by Landlord when Sublandlord receives written notice of such non-performance from Subtenant and (ii) to use commercially reasonable efforts to procure performance by Landlord; provided, further, however that Sublandlord shall have no obligation to Subtenant to threaten or commence any litigation or enforcement of formal remedies against Landlord. Notwithstanding the foregoing, if despite such commercially reasonable efforts by Sublandlord to procure the performance by Landlord, Landlord remains in default of its obligations under the Lease, upon the written request of Subtenant, Sublandlord shall assign to Subtenant the right on behalf of Sublandlord to pursue all claims at law or in equity against Landlord at Subtenant's sole cost and expense.

(f) Subtenant agrees to assume, be bound by and to perform every term, provision, covenant and condition, imposed upon Sublandlord by the Lease Provisions that are incorporated herein pursuant to Section 2.04(b), in accordance with this Sublease. All such obligations of Subtenant shall be for the benefit of, and shall be enforceable by, Sublandlord and/or Landlord. Subtenant agrees not to take or omit (or to permit to be taken or omitted) any action in violation of the terms and conditions of the Lease Provisions as they relate to Premises or any Common Areas. Subtenant shall promptly deliver to Sublandlord copies of any notices received by Subtenant with reference to Premises. Notwithstanding the foregoing, Subtenant shall not be responsible for any obligation of Sublandlord pursuant to the Lease which was required to be performed by Sublandlord prior to the Commencement Date and Subtenant shall not be responsible to indemnify Sublandlord or Landlord for any claims occurring prior to the Commencement Date or to repair and damage or remove any alterations which may exist in the Premises prior to the Commencement Date (unless such claims, damage or obligations arise or relate to actions taken by Subtenant or any Subtenant Party during the Early Occupancy Period).

(g) Whenever in the Lease a time is specified for the giving of any notice or the making of any demand by the tenant thereunder, such time is hereby changed, for the purpose of this Sublease only, by adding two (2) business days thereto and whenever in the Lease a time is specified for the giving of any notice or the making of any demand by the Landlord, such time is hereby changed, for the purpose of this Sublease only, by subtracting two (2) business days therefrom; provided, however, in no event shall Subtenant have less than three (3) business days and at no time shall Subtenant have less than thirty (30) days to make a payment upon receipt of invoice unless such payment is due directly to Landlord and the Lease provides for a shorter period of time in which case such payment shall be due to Landlord in such time as provided in the Lease. It is the purpose and intent of the foregoing provisions to provide Sublandlord with time within which to transmit to Landlord any notices or demands received from Subtenant and to transmit to Subtenant any notices or demands received from Landlord.

(h) To the extent Sublandlord is required to subordinate the Lease and/or this Sublease to any present and future ground or underlying leases of the land on which the Building is located and to the lien of any mortgages or trust deeds now and hereafter in force against the land on which the Building is located or the Building and to all renewals, extensions, modifications, consolidations and replacements thereof, and to all advances made or hereafter to be made upon the security thereof, Subtenant agrees to cooperate with Sublandlord regarding such subordination and to subordinate this Sublease as and to the extent reasonably required by Landlord. Sublandlord agrees to request from any such ground lessor, mortgagee or beneficiary of any deed of trust a written recognition agreement (the "**Non-Disturbance Agreement**") providing that Subtenant's rights and interests shall not be disturbed in the event of any foreclosure on any such lease, mortgage or deed of trust and confirming that Subtenant shall receive all of its rights and services provided for under this Sublease; provided that receipt of such Non-Disturbance Agreement shall not be a condition to the subordination of Subtenant's rights and interest under this Sublease.

(i) As an inducement to Subtenant to enter into this Sublease, Sublandlord represents and warrants that (i) a true and complete copy of the Lease, together with all supplements, amendments and other modifications thereto, (excluding redacted terms and conditions not relevant to Subtenant) is attached hereto as Exhibit C; (ii) the Lease is in full force

and effect; (iii) it has neither received nor delivered to Landlord a notice of default under the Lease; (iv) to Sublandlord's knowledge, no uncured default by Sublandlord presently exists under the Lease and Sublandlord is not aware of any event or condition which, with the giving of notice or passage of time or both, could constitute such a default or event of default by Sublandlord under the Lease; (v) to Sublandlord's knowledge, no uncured default by Landlord presently exists under the Lease and Sublandlord is not aware of any event or condition which, with the giving of notice or passage of time or both, could constitute such a default or event of default by Landlord under the Lease; (vi) to Sublandlord's knowledge, Sublandlord has not caused or permitted any Hazardous Materials to be stored and/or released in, on or about the Premises or any part thereof, other than those contained in ordinary office products and janitorial supplies or otherwise permitted by Environmental Laws and permitted by the Lease; and (vii) the initial improvements to the Premises were completed by Landlord in accordance with the Lease and all conditions to Sublandlord's acceptance of the Premises have been satisfied or waived. The phrase to "Sublandlord's knowledge" shall mean the current, actual knowledge of Dana Kuhn, without any duty of investigation or inquiry. Sublandlord represents and warrants that Dana Kuhn is the person most knowledgeable about the Premises. Subtenant understands that Sublandlord has not occupied the Premises since in or around November, 2013.

(j) Notwithstanding Article 18 of the Lease, Sublandlord shall have no right to terminate this Sublease in the event of a casualty unless the Lease is terminated pursuant to Article 18 thereof.

(k) Sublandlord agrees:

a. Upon Subtenant's request, to use reasonable efforts (excluding any legal proceedings), at Subtenant's expense, to obtain Landlord's consent or approval whenever required by the Lease (unless, in such instance, Sublandlord shall be entitled to withhold its consent or approval even if Landlord shall have granted its consent or approval).

b. That, if under the Lease any right or remedy of Sublandlord or any duty or obligation of Landlord is subject to or conditioned upon Sublandlord's making any demand upon Landlord or giving any notice or request to Landlord, if Subtenant shall so request, Sublandlord, at Subtenant's expense, shall make such demand or give such notice or request, except that Sublandlord shall not be required to request Landlord's consent or approval with respect to any act or thing as to which Sublandlord shall have determined in accordance with this Sublease to withhold its consent or approval.

c. If Landlord is in default under the Lease, Subtenant may request that Sublandlord pursue litigation or other proceedings against Landlord to enforce, interpret or seek other relief from Landlord in respect of its obligations under the Lease. If Sublandlord fails to commence such action within ten (10) business days following such request (or notifies Subtenant within such time period that Sublandlord elects not to do so), or if following commencement thereof Sublandlord fails to prosecute such action with reasonable diligence, then Subtenant shall have the right (but not the obligation) to commence and/or pursue

such litigation or other proceedings and to obtain such relief as shall be available. If Subtenant elects to initiate such action, Sublandlord shall promptly assign to Subtenant all claims Sublandlord may have against Landlord arising out of the Lease to the extent they relate to the Premises and the Sublease Term, together with Sublandlord's rights under the Lease with respect to such claims and proceedings. Sublandlord also agrees from time to time to take such other actions and to execute and deliver such assignments and/or other instruments as shall be reasonably necessary or appropriate to assign and/or confirm such rights in Subtenant and, at no cost or expense to Sublandlord, to reasonably cooperate with Subtenant in its efforts to pursue such litigation or other proceedings against Landlord. In the event Subtenant elects to initiate such action, Subtenant may dismiss or discontinue such proceedings at any time and without liability or obligation to Sublandlord; provided that in such event Subtenant shall reassign to Sublandlord the claims assigned to Subtenant pursuant to this Section 2.04(k)(c). In the event Subtenant elects to proceed under this Section 2.04(k)(c), Subtenant shall defend, indemnify, protect and hold Sublandlord harmless from and against any and all claims, damages, demands, causes of action, liabilities, losses, costs and expenses (including without limitation costs of suit and reasonable attorneys' fees) (collectively, "**Costs**") arising from or in connection with Subtenant's exercise of such rights; provided that this indemnification and Subtenant's obligation to defend shall not apply to any Costs arising out of (i) the Sublandlord's default under the Lease, except to the extent that default results from a failure of Subtenant to perform its obligations under this Sublease, or (ii) any liabilities or claims that Landlord may have against Sublandlord not resulting solely and directly from Subtenant's exercise of its rights under this Section 2.04(k)(c), except to the extent those liabilities or claims result from a failure of Subtenant to perform its obligations under this Sublease.

(l) Sublandlord agrees not to cause a default (or event which would become a default with the giving of notice or passage of time) under the Lease; provided, however, that the foregoing shall not obligate Sublandlord to perform any obligations to the extent the same is the obligation of Subtenant under this Sublease. Notwithstanding anything to the contrary contained in this Sublease, a breach by Sublandlord of the preceding sentence shall constitute a default under this Sublease unless the same is cured by Sublandlord within the applicable cure periods provided for in the Lease. Sublandlord shall defend, indemnify, protect and hold Subtenant harmless from and against any and all claims, damages, demands, causes of action, liabilities, losses, costs and expenses (including without limitation costs of suit and reasonable attorneys' fees) arising from or in connection with any failure by Sublandlord to make any monthly rental payment to Landlord under the Lease or otherwise breach its obligations under this Section 2.04(l), unless the failure to make such monthly rental payment to Landlord is due to Subtenant's failure to make payments of Base Rent or Additional Rent to Sublandlord as required under this Sublease.

(m) If Subtenant believes that the Additional Rent amounts payable by Subtenant under Section 2.03(b) of this Sublease in any year is greater than the amount Subtenant was actually obligated to pay in accordance with those provisions, Sublandlord agrees to exercise its audit rights under the Lease and to cooperate with Subtenant in the audit of

Landlord's books and records in accordance with the Lease. In the event Sublandlord conducts any audit of the Landlord's books and records under the Lease, Sublandlord shall provide Subtenant with copies of the results of that audit.

(n) Subtenant shall have no liability or obligation with respect to any Hazardous Materials, asbestos-containing materials or mold existing in the Premises prior to the Commencement Date.

2.05 Use of Premises. Subtenant shall use Premises only for general office and administrative purposes but for no other use ("**Subtenant's Use**"), all in compliance with the terms and conditions of the Lease.

2.06 Condition of Premises Upon Delivery. Sublandlord shall deliver the entirety of Premises to Subtenant in broom clean condition on the Commencement Date. Other than the foregoing, Subtenant has had the opportunity to inspect the Premises prior to the date of this Sublease and hereby accepts the Premises in its "As-Is" condition as of the Commencement Date of this Sublease, "with all faults" and subject to all reasonable wear, tear and other changes in condition that may occur between the execution of this Sublease and the Commencement Date. Sublandlord makes no representations or warranties whatsoever as to the condition, adequacy or sufficiency of Premises or the Building, any improvements or furnishings therein or on the real estate of which they constitute a part, or any part thereof, for Subtenant's present or future operations. Sublandlord shall have no obligation to render or supply any work, labor, services, materials, fixtures, equipment, decorations or other items whatsoever to make Premises ready or suitable for Subtenant's occupancy; nor shall Sublandlord be liable for any defect in Premises (whether latent or patent) or for any limitation on the use of Premises; provided, however, Sublandlord shall remain liable for its obligations under the Lease which have become the obligations of Subtenant under this Sublease up until the Commencement Date. Notwithstanding anything to the contrary, Sublandlord represents and warrants to Subtenant that, as of the Commencement Date, all improvements in the Premises and all building systems servicing the Premises shall be in good operating condition and repair. Such improvements and building systems shall include, without limitation, ceiling, walls, windows, doors, door locks, access systems, mechanical systems, electrical, plumbing, life safety systems, lighting and floor coverings. Pursuant to California Civil Code Section 1938, Sublandlord hereby notifies Subtenant that as of the date of this Sublease, the Premises have not undergone inspection by a "Certified Access Specialist" to determine whether the Premises meet all applicable construction-related accessibility standards under California Civil Code Section 55.53.

2.07 Insurance.

(a) Subtenant shall, as to Premises, at all times during the Sublease Term and at Subtenant's own cost and expense, obtain and maintain the insurance required to be maintained by Sublandlord pursuant to Articles 15 and 16 of the Lease. Such policies of insurance shall name Sublandlord and Landlord as additional parties insured thereunder or additional payees (as applicable), and Subtenant shall deliver to Sublandlord certificates of such insurance as proof of coverage within thirty (30) days after the execution of this Sublease by all parties, and thereafter as may be reasonably required by Sublandlord or Landlord; provided however, Subtenant shall not be obligated to provide a certificate of insurance until at least ten (10) days prior to the expiration of such policy. Insurance maintained by Subtenant under this Sublease shall be primary to insurance carried by Sublandlord or Landlord.

(b) Each casualty, fire and extended coverage or all-perils insurance policy required under this Sublease shall contain a clause in which the underlying insurance carrier waives all rights of subrogation against Sublandlord and Landlord with respect to losses payable under such policies, provided such waiver of subrogation shall not affect the right of the insured to recover thereunder. Subtenant hereby waives all rights of subrogation against Sublandlord to the extent either this Sublease or the Lease provides such waivers by Sublandlord for the benefit of Landlord. Since the waiver of subrogation in the Lease is mutual, then this waiver is deemed mutual in this Sublease. By this paragraph, Sublandlord and Subtenant intend that the risk of loss or damage be borne by Subtenant's insurance carriers and Subtenant shall look solely to and seek recovery from only its insurance carriers in the event a loss is sustained for which insurance is required under this Sublease.

(c) All personal property belonging to Subtenant or to any other person located in or about Premises shall be at the sole risk of Subtenant or such other person, and Subtenant acknowledges and agrees that neither Sublandlord nor its employees or agents shall be liable for any theft or misappropriation of, or damage or injury to, such property.

(d) Subtenant shall comply with all applicable laws (including, without limitation, all applicable fire codes and rules and regulations of Landlord's and Sublandlord's fire insurance underwriters) and all orders and decrees of court and all requirements of other governmental authorities to the extent required under the Lease, and shall not, directly or indirectly, make any use of the Premises which may be prohibited by law, may be dangerous to person or property, or may jeopardize any insurance coverage or may increase the cost of insurance or require additional insurance coverage. If by reason of the failure of Subtenant to comply with the provisions of this Section 2.07(d), any insurance coverage is jeopardized or insurance premiums are increased, Sublandlord shall have the option either to terminate this Sublease or to require Subtenant to make immediate payment of this increased insurance premium.

(e) If Subtenant fails to maintain any insurance which Subtenant is required to maintain pursuant to this Section 2.07, Subtenant shall be liable to Sublandlord for any loss or costs resulting from such failure to maintain. Subtenant may not self-insure against any risks required by this Sublease to be covered by insurance.

(f) Sublandlord makes no representation that the limits of liability specified to be carried by Subtenant under this Section 2.07 are adequate to protect Subtenant. In the event Subtenant believes that any insurance coverage required by this Sublease is insufficient, Subtenant shall provide, at its own expense, such additional insurance as Subtenant deems adequate.

(g) Subtenant shall require each of its contractors and trades people to carry insurance in amounts and standards specified in this Section 2.07 or as Sublandlord or Landlord may from time to time reasonably require, from insurance companies licensed to do business in the State of California.

(h) Subtenant shall immediately furnish Sublandlord with a copy of any written notice received, and a written summary of any oral notice received, from any governmental or quasi-governmental authority, insurance company, inspection bureau or any other third party as it relates to Premises.

2.08 Maintenance and Repairs.

(a) Subtenant shall be responsible for and shall pay all maintenance, replacements and repairs as to Premises to the extent Sublandlord is obligated to Landlord to perform such maintenance, replacements and repairs under the Lease. Sublandlord shall have no duty to perform any obligations of Landlord which are, by their nature, the obligations of an owner or manager of real property, provided however, that Sublandlord shall reasonably cooperate with Subtenant in the enforcement of such Landlord obligations under the Lease as required under Section 2.04(e) above. Sublandlord shall have no responsibility for or be liable to Subtenant for any default, failure or delay on the part of Landlord in the performance or observance by Landlord of any of its obligations under the Lease, nor shall such default by Landlord affect this Sublease or waive or defer the performance of any of Subtenant's obligations under this Sublease except to the extent that such default by Landlord excuses performance by Sublandlord under the Lease.

2.09 Extra Services. Sublandlord hereby grants Subtenant the right to request any Special Cleaning Service, excess electrical current, or after hours HVAC directly from Landlord; provided, that Subtenant shall promptly inform Sublandlord on any such request and hereby agrees to pay any and all charges payable to Landlord and/or Sublandlord (as applicable) for such services under the Lease. In the event Landlord requires such request to be made by Sublandlord, promptly upon request of Subtenant forward such request to Landlord on Subtenant's behalf.

2.10 Indemnity. Subtenant shall indemnify, defend and hold Sublandlord, Landlord, and their respective partners, affiliates, stockholders, directors, agents and employees (collectively, the "**Indemnitees**") harmless from and against any and all costs, claims, demands, expenses, actions, judgments, penalties, fines, damages and liabilities (including reasonable attorneys' fees), losses of every kind and nature to which any of the Indemnitees may be subject arising from or incurred in connection with (a) any damage to any property or any injury (including but not limited to death) to any person occurring in, on or about the Premises, Building and or Complex to the extent that such injury or damage shall be caused by or arise from any actual or alleged act, neglect, fault, or omission by or of Subtenant or any of Subtenant's agents, contractors, employees, licensees or business invitees (collectively, the "**Subtenant Parties**"); (b) the conduct or management of any work or thing whatsoever done by the Subtenant in or about the Premises or from transactions of the Subtenant concerning the Premises; (c) Subtenant's failure to comply with any and all governmental laws, ordinances and regulations applicable to the use of the Premises or its occupancy to the extent required under the Lease; (d) any violation or alleged violation by Subtenant or any Subtenant Party of any of the requirements, ordinances, statutes, regulations or other laws referenced in Article 10 of the Lease, including, without limitation, the Environmental Laws; (e) any breach of the provisions of Article 10 of the Lease by Subtenant or any of Subtenant's Parties; (f) any Hazardous Use by Subtenant or any of Subtenant's Parties on, about or from the Premises of any Hazardous

Material approved by Sublandlord under this Sublease; or (g) any other breach or default on the part of Subtenant in performance of any covenant or agreement on the part of the Subtenant to be performed pursuant to this Sublease; provided, however, the foregoing indemnity shall not be applicable to the extent any claims arise out of or are attributable to the gross negligence or willful misconduct of Sublandlord. Without limiting the foregoing, Subtenant's obligations under this Section 2.10 shall cover any and all Losses (as such term is defined in Section 10.4 of the Lease) incurred by Sublandlord that are in any way related to any matter covered by the foregoing indemnity. Sublandlord shall defend, indemnify, protect and hold Subtenant harmless from and against any and all claims, damages, demands, causes of action, liabilities, losses, costs and expenses (including without limitation costs of suit and reasonable attorneys' fees) arising from or in connection with the gross negligence or willful misconduct of Sublandlord. The provisions of this Section 2.10 shall survive the termination of this Sublease with respect to any claims or liability accruing prior to such termination.

2.11 Security Deposit.

(a) Payment on Sublease Execution. Subtenant shall pay Sublandlord upon execution hereof the sum of Thirty Three Thousand Three Hundred Sixty Dollars and Twelve Cents ($33,360.12) as a Security Deposit (the "**Security Deposit**"). Sublandlord shall not be required to (1) keep said deposit separate from its general accounts, or (2) pay interest, or other increment for its use. If Subtenant fails to pay Rent or other charges when due hereunder, or otherwise defaults with respect to any provision of this Sublease, including and not limited to Subtenant's obligation to restore or clean the Premises following vacation thereof, and such failures or default continue beyond the applicable notice and cure period set forth herein (if any), Sublandlord may use or apply the Security deposit (or a portion thereof) for the payment of any rent or other charges in default, or for the payment of any other sum to which Sublandlord may become obligated by reason of Subtenant's default, or to compensate Sublandlord for any loss or damage which Sublandlord may suffer thereby. Sublandlord may retain such portion of the Security Deposit as it reasonably deems necessary to restore or clean the Premises following vacation by Subtenant. The Security Deposit is not to be characterized as rent until and unless so applied in respect of a default by Subtenant. Subtenant hereby waives the provisions of Section 1950.7 (excluding subsection (b)) of the California Civil Code and all other provisions of law, now or hereafter in force, which provide that Sublandlord may claim from a security deposit only those sums reasonably necessary to remedy defaults in the payment of rent, to repair damage caused by Subtenant or to clean the Premises, it being agreed that Landlord may, in addition, claim those sums reasonably necessary to compensate Sublandlord for any other loss or damage, foreseeable or unforeseeable, caused by the act or omission of Subtenant or any officer, employee, agent or invitee of Subtenant.

(b) Restoration of Deposit. If Sublandlord elects to use or apply all or any portion of the Security Deposit as provided in this Section 2.11, Subtenant shall within ten (10) days after written demand therefor deposit with Sublandlord in cash, an amount equal to that portion of the Security Deposit used or applied by Sublandlord, and Subtenant's failure to so do shall be a an "Event of Default" under this Sublease. The ten (10) day notice specified in the preceding sentence shall insofar as not prohibited by law, constitute full satisfaction of notice of default provisions required by law or ordinance. Should Subtenant faithfully and fully comply with all of the terms, covenants and conditions of this Sublease, within thirty (30) days following

the expiration of the Sublease Term and Subtenant having vacated the Premises, the Security Deposit or any balance thereof shall be returned to Subtenant or, at the option of Sublandlord, to the last assignee of Subtenant's interest in this Sublease.

2.12 Telecommunication Services. To the extent permitted in the Lease, Subtenant shall have the right to contract directly with telecommunications and media service providers (each a "**Telecommunication Provider**") of Subtenant's choice. Subtenant shall promptly pay and be solely responsible for the cost of such service. Sublandlord shall not be obligated to incur any expense, liability or costs in connection with any Telecommunication Provider proposed by Subtenant. Subtenant will have access and use of the existing cabling and wiring during the Sublease Term, all in accordance with the terms and provisions of this Sublease and the Lease.

2.13 Alterations and Additions. Notwithstanding any rights to make alterations or additions that Sublandlord may have under the Lease, Subtenant shall not make any alterations or additions to Premises, the electrical equipment or building systems in Premises or the Building without the prior written consent of Sublandlord, which consent shall not be unreasonably withheld, conditioned or delayed unless Sublandlord is unable to obtain Landlord's consent to such alterations or additions, which consent Sublandlord shall use good faith commercially reasonable efforts to obtain as soon as possible upon request by Subtenant. Any alterations or additions to Premises permitted by Sublandlord shall be made in strict accordance with the terms of the Lease and, at the expiration or earlier termination of this Sublease, shall remain in Premises or be removed from Premises, at Subtenant's sole cost and expense, as may be directed by Sublandlord or Landlord and in a manner consistent with the applicable provisions of the Lease.

2.14 Signage. Subject to the terms of the Lease, Sublandlord grants to Subtenant all rights to signage granted to Sublandlord under the Lease. On or prior to the Commencement Date, Sublandlord shall cooperate with Landlord and Subtenant to replace the existing signage for the Premises and to afford Subtenant the benefits conferred under Article 23 of the Lease.

2.15 Parking. Sublandlord hereby grants Subtenant the rights to use the Parking Spaces on the terms and conditions set forth in Section 3.4(c) of the Lease. Without limiting the foregoing, Subtenant shall furnish Sublandlord and Landlord with a list of employees' vehicle license numbers within fifteen (15) days of the Commencement Date and thereafter shall notify Landlord and Sublandlord of any changes within fifteen (15) days of any such request.

2.16 Early Access. Commencing as soon as Landlord issues its written consent to this Sublease and ending on the Commencement Date (if any, the "**Early Occupancy Period**"), Subtenant shall have the right to enter the Premises for the sole purposes of installing Subtenant's computer equipment, phone and cabling, furniture, fixtures and other equipment. During the Early Occupancy Period, Subtenant shall enter and occupy the Premises subject to all of the terms and provisions of this Sublease, except that during such period Subtenant shall not be required to pay Base Rent, Additional Rent or other amounts which are otherwise required to be paid by Subtenant to Sublandlord under this Sublease as long as Subtenant shall not open for business or conduct any operations from the Premises during this period.

2.17 Assignment or Subletting by Subtenant. Except for a Permitted Transfer described in Section 21.5 of the Lease, Subtenant shall not suffer a Transfer of the Leased Premises (as defined in the Lease) or any interest therein or any part thereof, or any right or privilege appurtenant thereto without the prior written consent of Sublandlord and in strict accordance with the terms and conditions of Article 21 of the Lease which is incorporated herein as if set forth in full, which consent shall not be unreasonably withheld, conditioned or delayed. For avoidance of doubt, it shall be reasonable for Sublandlord to withhold its consent to any Transfer if Sublandlord is unable to obtain the consent of Landlord to any such Transfer if required under Article 21 of the Lease. Without limiting the incorporation of Article 21 as set forth above, and for avoidance of doubt, Subtenant shall pay to Sublandlord on a monthly basis, fifty percent (50%) of all rent, additional rent or other consideration payable by any transferee and received by Subtenant in connection with any Transfer of the Premises in excess of the Rent payable by Subtenant under this Sublease, on a per rentable square foot basis if less than all of the Premises are transferred, after deducting reasonable expenses actually incurred by Subtenant in connection therewith for (i) improvements to the Premises made and paid for by Subtenant in connection with the transfer; (ii) reasonable brokerage commissions paid by Subtenant to unaffiliated third party licensed real estate brokers in connection with such transfer; and (iii) reasonable legal fees incurred in connection with any such transfer. The amount so derived shall be paid with Subtenant's Rent payments due hereunder.

2.18 Surrender of Premises. Upon the expiration or early termination of this Sublease or Subtenant's right to possession of Premises, Subtenant shall surrender the Premises to Sublandlord in the condition required by the Lease Provisions; provided, however, Subtenant shall not be required to surrender the Premises in better condition that as existed as of the Commencement Date, normal wear and tear, casualty or condemnation excepted, nor shall Subtenant be responsible to remove any alterations or improvements existing in the Premises prior to the Early Occupancy Period.

2.19 Default. If the Subtenant shall fail to perform or observe any of the terms, provisions, covenants or conditions of this Sublease or of the Lease Provisions, and such failure continues beyond the expiration of the notice and cure period provided in Article 24 of the Lease (an "**Event of Default**"), Sublandlord shall have all the rights of Landlord under the Lease and Subtenant shall be subject to all provisions with respect to a default by Tenant under the Lease. Without limiting the generality of the foregoing, Sublandlord shall have the remedy described in California Civil Code Section 1951.4 (Sublandlord may continue this Sublease in effect after Subtenant's breach, even if Subtenant has abandoned Premises, and enforce all of Sublandlord's rights and remedies under this Sublease, including the right to recover rent as it becomes due, if Subtenant has the right to sublet or assign, subject only to reasonable limitations). In addition to any right of Sublandlord under the Lease, upon an Event of Default by Subtenant, Sublandlord may thereafter at any time terminate this Sublease and reenter Premises, and/or require immediate payment by Subtenant of all monetary obligations of Subtenant under this Sublease based on Sublandlord's reasonable estimation of those costs at such time. All rights and remedies of Sublandlord under this Sublease, the Lease, at law or in equity shall be cumulative, none shall be exclusive of any other, and pursuit of any one right or remedy shall not preclude pursuit of any additional rights or remedies.

In the event Sublandlord receives a notice of default from Landlord pursuant to the Lease, Sublandlord shall promptly forward such notice of default to Subtenant and if such default is not cured by Sublandlord by the day that is two (2) days prior to the date on which the grace or cure period under the Lease shall expire (excepting therefrom, grace periods of fewer than five (5) days, which shall expire on the day prior to the expiration date set forth in the Lease), Subtenant may, in addition to all other rights and remedies Subtenant may have hereunder, at law, or in equity, but shall have no obligation to do so whatsoever, perform such obligation directly in a commercially reasonable manner. If such notice of default is given by Landlord due to a default of Sublandlord under Section 24.1 of the Lease, then, provided that Subtenant is not in default of any of its obligations under this Sublease beyond any applicable notice and cure period, Sublandlord shall pay the actual and reasonable out-of-pocket costs incurred by Subtenant in connection with that cure to Subtenant upon demand, plus interest from the date of demand through and including the date of payment at 5% per annum. In the event Sublandlord fails to pay the amount demanded by Subtenant under this Paragraph 2.19 within ten (10) days after demand, Subtenant may offset that amount against future payments of rent becoming due under this Sublease until such amount is satisfied; provided, however, that such offset right shall not apply if Sublandlord shall have given Subtenant notice that Sublandlord is disputing the notice of default from Landlord that relates to the obligation performed by Subtenant and Sublandlord's dispute is bona fide and made in good faith. If a default notice is given by Landlord, Subtenant may request that Sublandlord notify Subtenant as to whether Sublandlord disputes that default notice and Sublandlord shall respond to that request within three (3) business days after receipt of that request.

2.20 Landlord Notice. This Sublease, and the rights and obligations of Subtenant under this Sublease, are subject to the condition precedent that Landlord issue its written consent to this Sublease. Sublandlord shall deliver notice to Landlord promptly after the full execution of this Sublease.

2.21 Notices. All notices or other communications given under any provisions of this Sublease shall be in writing and shall be deemed given when delivered in person or two (2) business days after being mailed by certified mail, return receipt requested, addressed to the intended recipient as follows, or at such other place as the intended recipient may designate for itself by a notice, conforming to the provisions of this Section 2.21, to the other party to this Sublease:

To Sublandlord:	Accesia, Inc., c/o Patient Services, Inc. P.O. Box 5930 Midlothian, VA 23112 Attn: Dana A. Kuhn, Ph.D., President
With a copy to:	Nixon Peabody LLP One Embarcadero Center, 18th Floor San Francisco, CA 94123 Attention: John R. Garibaldi, Esq.

To Subtenant:	Before the Commencement Date: Atara Biotherapeutics, Inc. 3260 Bayshore Blvd. Brisbane, California 94005 Attention: Joshua Higa After the Commencement Date: The Premises Attention: Joshua Higa
With a copy to:	Sheppard, Mullin, Richter & Hampton, LLP 12275 El Camino Real, Suite 200 San Diego, California 92130 Attention: Tony Toranto

2.22 Limitation on Sublandlord's Liability. Sublandlord shall not be liable for any loss or damage, whether direct, indirect, consequential, or punitive, which Subtenant may claim or incur as a direct or indirect result of the unavailability, breakdown or other failure of any of the services, facilities or equipment to be provided by Sublandlord or Landlord under this Sublease, regardless of the cause of such unavailability, breakdown or failure. Except as otherwise set forth in this Sublease, Sublandlord makes no warranty, express or implied, regarding such services, facilities or equipment, nor does Sublandlord make any warranty that such services, facilities or equipment are fit for any particular purpose or merchantable; and Subtenant acknowledges that Subtenant has inspected such services, facilities and equipment and has relied only upon Subtenant's own inspection regarding them and not on any representation made by Sublandlord concerning their performance or suitability. Without limiting the foregoing, and notwithstanding anything to the contrary in this Sublease, it is expressly understood and agreed that (a) none of the past, present or future partners of Sublandlord shall be personally liable for the payment or performance of any of Sublandlord's duties, responsibilities, liabilities or obligations under this Sublease, and (b) no past, present or future partner of Sublandlord shall be named in any suit or other judicial proceeding of any kind or nature whatsoever brought against Sublandlord with respect to the duties, responsibilities or obligations of Sublandlord under this Sublease.

2.23 Holdover. If Subtenant remains in possession of Premises after the termination date of this Sublease, Subtenant shall indemnify and hold harmless Sublandlord for all costs and expenses incurred, including reasonable attorneys' fees that Sublandlord may incur as a result of Subtenant's holdover under Section 33.2 of the Lease or under any other applicable provision of the Lease. In no event shall there be any renewal of this Sublease by operation of law if Subtenant remains in possession of Premises after the expiration or early termination of the Sublease Term.

2.24 Real Estate Brokers. Sublandlord and Subtenant represent and warrant to each other that they have not dealt with any real estate broker, agent or finder in connection with this Sublease other than Cassidy Turley who is acting as dual agent to Sublandlord and Subtenant in this transaction ("**Broker**"). Sublandlord shall pay the Broker a commission with respect to this Sublease per a separate agreement. Subtenant will indemnify, defend and hold Sublandlord harmless from and against any and all costs, expenses or liability for commissions or other

compensation or charges claimed by any finder, broker or agent other than the Broker based on dealings with Subtenant with respect to this Sublease. Sublandlord will indemnify, defend and hold Subtenant harmless from and against any and all costs, expenses or liability for commissions or other compensation or charges claimed by any finder, broker or agent other than the Broker based on dealings with Sublandlord with respect to this Sublease. The provisions of this Section shall survive the expiration or earlier termination of this Sublease.

2.25 Attorneys' Fees. Notwithstanding anything in this Sublease to the contrary, in the event of legal action between Sublandlord and Subtenant as a result of any alleged default by either party hereunder, the prevailing party shall be entitled to entry of judgment including reimbursement by the other party for reasonable attorneys' fees and costs incurred by the prevailing party in connection with such action.

2.26 Defined Terms and References. All capitalized terms used and not otherwise defined in this Sublease shall have the respective meanings ascribed to them in the Lease. Unless otherwise expressly stated, all references to a "Section" are to the corresponding sections of this Sublease.

2.27 Entire Agreement. This Sublease contains the entire understanding of the parties with respect to the subletting of Premises to Subtenant by Sublandlord, and shall supersede all prior agreements, if any, with respect to such matter, which prior agreements are hereby deemed null and void.

2.28 Amendments to Sublease Only in Writing. This Sublease shall not be modified, amended or extended except by an instrument in writing, duly signed and delivered by authorized representatives of both Sublandlord and Subtenant.

2.29 No Recordation of Sublease. Neither this Sublease nor any memorandum or short form referring to this Sublease shall be recorded in any public record.

2.30 Condemnation Proceeds. Any compensation awarded or paid upon a total or partial taking of Premises or any Common Areas shall be awarded or paid as set forth in the Lease; provided, however, that Sublandlord shall be entitled to any award relating to the leasehold estate in the Premises, if payable to Tenant under the Lease. Notwithstanding the foregoing, Subtenant shall be entitled to receive, or prosecute a separate claim for an award for a temporary taking of Premises or a portion thereof by a condemnor where this Sublease is not terminated (to the extent such award relates to the unexpired Sublease Term), or an award separately designated for relocation expenses or the interruption of or damage to Subtenant's business or as compensation for Subtenant's personal property.

2.31 Covenant of Quiet Enjoyment. Sublandlord warrants and agrees that so long as Subtenant shall observe and perform the obligations imposed upon it in this Sublease, Subtenant shall at all times during the Sublease Term peacefully and quietly have and enjoy the possession and use of Premises free from interference from Sublandlord or anyone claiming by or through Sublandlord.

2.32 Entry by Sublandlord. Sublandlord reserves the right at all reasonable times to enter Premises upon not less than twenty-four (24) hours prior notice and during business hours;

except in cases of emergency, in which case, Sublandlord may enter the Premises at any time and shall endeavor to provide Subtenant with notice prior to entry. Sublandlord agrees to use commercially reasonable efforts to minimize any unreasonable interference with Subtenant's access to or use of the Premises for Subtenant's normal business operations as a result of Sublandlord's exercise of its rights under this Section 2.32.

2.33 Captions and Headings. The titles or headings of the various sections and paragraphs of this Sublease are intended solely for convenience of reference and are not intended and shall not be deemed to or in any way be used to modify, explain or place any construction upon any of the provisions of this Sublease.

2.34 Counterparts. This Sublease may be executed in any number of counterparts, all of which taken together shall constitute one and the same instrument and any of the parties hereto

[SIGNATURES TO FOLLOW]

IN WITNESS WHEREOF, Sublandlord and Subtenant have executed this Sublease Agreement effective as of the day and year first above written.

Subtenant:

Atara Biotherapeutics Inc.,
a Delaware corporation

By: /s/ Isaac Ciechanover
Name: Issac Ciechanover
Title: CEO

Sublandlord:

Accesia, Inc.,
a Virginia corporation

By: /s/ Dana A. Kuhn, PhD
Name: Dana A. Kuhn, PhD
Title: Chairman of Accesia

EXHIBIT A

PREMISES

Exhibit B of the Lease (Floor Plan of Leased Premises) is incorporated as if fully set forth herein.

EXHIBIT B

LIST OF FURNITURE AND FIXTURES TO REMAIN IN PREMISES

Room		
Reception - 210	2 glass tables	Lobby sofa, lobby coffee table, 2 lobby chair, reception desk chair
Jade Conf. Room - 211	round table, four black chairs	
Diamond Conf Room - 212		conference table, 14 chairs, credenza (DIVCO)
Sapphire Conf Room - 215	conference table, 12 chairs, whiteboard	
Emerald Conf Room - 216	2 desks, 4 pedestals, 4 black chairs, white board	1 combo lateral pedestal
Ruby Conf Room - 217	1 exec desk with right return/1 two drawer lateral/overhead cabinet, 4 black chairs, 2 pedestals	whiteboard
CEO Office - 219	1 wood small bookcase	L-shaped office desk, 2 beige guest chairs, office filing cabinet (under desk), white board
CFO Office - 221	1 exec desk with right return/two drawer lateral/overhead cabinet, 2 drawer lateral, whiteboard, 2 black chairs	
CMO Office - 222	1 exec desk with left return/two drawer lateral/overhead cabinet, 2 drawer lateral, wood bookcase, whiteboard	1 brown guest chair
Kitchen - 224	metal cabinet	2 kitchen dining tables; 10 kitchen steel stools; stainless refrigerator; microwave; toaster oven

Storage Room - 225 & 226	2-4 four-drawer laterals, tbd	4 storage room chairs (green), 2 storage room work tables; 9 storage room shelving and cabinets
Server Room - 223		
Open Space	1 large desk, 3 two drawer laterals, 14 pedastals, glass table, wood oval table, 1 small glass table, brown cube bookshelf, 2 light wood bookshelves, 3 metal bookshelves, 7 black chairs	6-seat work station, 5-seat work station, 2 huddle area sofas, huddle area coffee table, 2 L-shaped office desk, 2 office filing cabinet (under desk), large white board, 2 huddle area chairs (brown), 2 beige guest chairs, 1 brown guest chair
Phone Room - 227	1 chair	

EXHIBIT C

LEASE

[Attached]

OFFICE LEASE

BY AND BETWEEN

DWF III GATEWAY, LLC,
A Delaware limited liability company,
As Landlord

And

ACCESIA, INC.,
A Virginia corporation,
as Tenant

For Leased Premises at Suite 200,
701 Gateway Boulevard, South San Francisco, California

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OFFICE LEASE

THIS OFFICE LEASE ("**Lease**") is entered and dated for reference purposes only as November 13, 2012 (the "**Lease Reference Date**"), by and between "Landlord" and "Tenant" (as such terms are defined below).

ARTICLE 1 SALIENT LEASE TERMS

In addition to the terms defined throughout this Lease, the following salient terms shall have the following meanings when referred to in this Lease:

1.1	**Rent Payment Address:**	DWF III Gateway, LLC P.O. Box 7470 San Francisco, CA 94120-7470
1.2	**"Landlord" and Notice Address:**	DWF III Gateway, LLC, c/o Divco West Real Estate Services, Inc. 575 Market Street, 35th floor San Francisco, CA 94105 Attention: Asset Manager and Property Manager
		With a copy to: Broadway Partners 100 California Street, Suite 1400 San Francisco, CA 94111 Attention: Asset Manager
1.3	**"Tenant" and Notice Address**	Accesia, Inc.
		Prior to Commencement Date: 1534 Plaza Lane, #194 Burlingame, CA 94010 Attention: Gina Ford
		From and after Commencement Date: At the Leased Premises Attention: Gina Ford
		With a copy to: Patient Services, Inc. P.O. Box 5930 Midlothian, VA 23112 Attention: Facilities
1.4	**"Leased Premises:"**	Approximately 7,038 square feet of Rentable Area (hereinafter defined) in Suite 200 of the Building. The foregoing Rentable Area of the Leased Premises shall be deemed the actual Rentable Area.
1.5	**"Building:"**	That building located at 701 Gateway Boulevard, South San Francisco, California, containing approximately 170,310 square feet of Rentable Area, which shall be deemed the actual square footage of Rentable Area in the Building.

1.6	**Complex:**	The Building, the Common Areas (hereinafter defined), the parcel(s) of land containing the Building and Common Areas, as such parcel of land is described in Exhibit A attached hereto (the "**Land**").
1.7	**Estimated Commencement Date:**	Approximately sixty (60) days after the complete execution of this Lease by Tenant and Landlord ("**Estimated Commencement Date**").
1.8	**"Term:"**	Forty-eight (48) months following the Commencement Date, plus any partial month for the month in which the Commencement Date occurs if the Commencement Date occurs on other than the first day of a calendar month. If the Commencement Date is other than the first day of a calendar month, the first month shall include the remainder of the calendar month in which the Commencement Date occurs plus the first full calendar month thereafter; provided, however, that the inclusion of any partial month in the first full calendar month shall not entitled Tenant to any additional free rent. Any free rent shall be applied on a daily basis (based on a 30 day month) so that Tenant does not receive additional free rent if the first month includes a full calendar month plus any partial month.
1.9	**"Minimum Monthly Rent:"**	Months — Minimum Monthly Rent 1 – 12 — $20,762.10 (subject to the Minimum Rent Abatement for the Minimum Rent Abatement Period (as such terms are defined below) 13 – 24 — $21,384.96 25 – 36 — $22,026.51 37 – 48 — $22,687.31 The foregoing schedule starts as of the Commencement Date of the Term of this Lease. Provided Tenant is not in default, Landlord agrees not to demand or collect and Tenant shall have no obligation to pay monthly Minimum Monthly Rent for the first four (4) months of the initial Term ("**Minimum Rent Abatement Period**").
1.10	**Base Year for Base Year Costs:"**	For Base Operating Costs: 2013 calendar year For Base Taxes: 2013 calendar year
1.11	**"Security Deposit:"**	$41,524.20
1.12	**"Permitted Use:"**	The Leased Premises shall be used solely for general office and administrative purposes, but for no other use. Landlord acknowledges that such use may include call center operations, provided the density within the Leased Premises does not exceed 5 persons for each 1,000 square feet of Rentable Area of the Leased Premises.

1.13	**Proportionate Share:**	Tenant's initial Proportionate Share is 4.13% based on the ratio that the Rentable Area of the Leased Premises (i.e., 7,038 square feet) bears to the Rentable Area of the Building (i.e., 170,310 square feet).
1.14	**"Broker(s):"**	Cassidy Turley representing Landlord and Tenant.
1.15	**Guarantor:**	Patient Services, Inc., a Virginia corporation
1.16	**Parking Allocation:**	23 parking spaces.
1.17	**Contents:**	Included as part of this Lease are the following Exhibits and addenda which are attached hereto and incorporated herein by this reference:

Exhibits:
A - Legal Description for the Land
B - Floor Plan of the Leased Premises
C - Work Letter with Exhibit C-1 attached thereto
D - Acknowledgment of Commencement Date
E - Rules & Regulations
F - Option to Extend and Right of First Offer
G - Guaranty

ARTICLE 2 ADDITIONAL DEFINITIONS

The terms defined in this Article 2 shall, for all purposes of this Lease and all agreements supplemental hereto, have the meanings herein specified, unless expressly stated otherwise.

"**Base Operating Costs**" means the Operating Costs for the calendar year set forth in Section 1.10 hereof as such Operating Costs shall be increased to be what the Operating Costs would have been if the Building were one hundred percent (100%) leased and occupied during such calendar year. Additionally, if any new types of insurance coverage are obtained or effected by Landlord during any calendar year after the Base Year (but is not obtained or effected during the Base Year) then the cost of such new type of insurance shall be added to the Insurance Cost element of the Base Operating Costs (but at the rate which would have been in effect during the Base Year) for the year which such change in insurance is initially obtained or effected until such time as Landlord elects to no longer carry such new type of insurance.

"**Base Taxes**" means the Taxes for the calendar year set forth in Section 1.10 hereof.

"**Commencement Date**" shall mean the earlier of (a) the date by which the Tenant Improvements to be constructed by Landlord pursuant to Exhibit C, if any, have been "Substantially Completed," subject to "Tenant Delays" and "Force Majeure Delays" (as such terms are defined in Exhibit C), or (b) the date Tenant takes possession of the Leased Premises for purposes of commencing business and not for early access under Section 4.3. However, if there is any delay in Substantially Completing the Tenant Improvements due to any Tenant Delay, then such delay shall thereupon effect a postponement of the date by which Landlord is obligated to substantially complete the Tenant Improvements; however, the Commencement Date shall be deemed the date the Tenant Improvements would have been Substantially Completed but for the Tenant Delays. Thus, the date for commencement of the free rent, Rent and all additional rent shall not be delayed by Tenant Delay.

"**Common Areas**" shall mean all areas and facilities outside the Leased Premises within the exterior boundaries of the parcel of land containing the Building of which the Leased Premises form a part, together with the parking and access areas within the Complex, all as provided and designated by Landlord from time to time for the general use and convenience of Tenant and of other tenants of Landlord having the common use of such areas, and their respective authorized representatives and invitees. As of the date of this Lease, Common Areas include, without limitation, corridors, stairways, elevator shafts, janitor rooms in the Building, the driveways, parking areas and landscaped areas in the Complex.

"**Insurance Costs**" shall mean all premiums and costs and expenses for all policies of insurance which may be obtained by Landlord in its discretion for (a) the Leased Premises, Building and the Common Areas of the Complex, or any blanket policies which include the Building or Complex, covering damage thereto and loss of rents caused by fire and other perils Landlord elects to cover, including, without limitation, coverage for earthquakes and floods, (b) commercial general liability insurance for the benefit of Landlord and its designees and (c) such other coverage Landlord elects to obtain for the Leased Premises, Building or Common Areas of the Complex, including, without limitation, coverage for environmental liability and losses.

"**Lease Year**" means the calendar year, or portion thereof, following the Commencement Date and during the Term, the whole or any part of which period is included within the Term.

"**Operating Costs**" means the total amounts paid or payable, whether by Landlord or others on behalf of Landlord, in connection with the ownership, maintenance, repair, replacement and operations of the Building and the Common Areas of the Complex in accordance with Landlord's standard operating and accounting procedures. If the Complex consists of multiple buildings, certain Operating Costs may pertain to a particular building(s) and other Operating Costs to the Complex as a whole (such as Operating Costs for the Common Areas of the Complex). Operating Costs applicable to any particular building within the Complex shall be charged to the building in question whose tenants shall be responsible for payment of their respective proportionate shares in the pertinent building and other Operating Costs applicable to the Complex (such as the Common Areas of the Complex) shall be charged to each building in the Complex (including the Building) with the tenants in each such building being responsible for paying their respective proportionate shares in such building of such costs to the extent required under the applicable leases. Landlord shall in good faith attempt to equitably allocate such Operating Costs to the buildings (including the Building). Operating Costs shall include, but not be limited to, the aggregate of the amount paid for:

(1) all fuel used in heating and air conditioning of the Building and Common Areas of the Complex;

(2) the amount paid or payable for all electricity furnished by Landlord to the Common Areas of the Complex (other than electricity furnished to and paid for by other tenants by reason of their extraordinary consumption of electricity and that furnished to the other building in the Complex for which the tenants of such other building are responsible for such electrical costs);

(3) the cost of periodic relamping and reballasting of lighting fixtures;

(4) the amount paid or payable for all hot and cold water (other than that chargeable to Tenants by reason of their extraordinary consumption of water and that furnished to other buildings in the Complex for which the tenants of such other building are responsible for such water costs) and sewer costs;

(5) the amount paid or payable for all labor and/or wages and other payments including cost to Landlord of workers' compensation and disability insurance, payroll taxes, welfare and fringe benefits made to janitors, caretakers, and other employees, contractors and subcontractors of Landlord (including wages of the Building manager) to the extent involved in the management, operation, maintenance and repair of the Complex;

(6) painting for exterior walls of the Building and the Common Areas of the Complex; managerial and administrative expenses; the total charges of any independent contractors employed in the repair, care, operation, maintenance, and cleaning of the Building and Common Areas of the Complex;

(7) the amount paid or payable for all supplies occasioned by everyday wear and tear;

(8) the costs of climate control, window and exterior wall cleaning, telephone and utility costs of the Building and Common Areas of the Complex;

(9) the cost of accounting services necessary to compute the rents and charges payable by Tenants and keep the books of the Building and Common Areas of the Complex;

(10) fees for management, including, without limitation, office rent, supplies, equipment, salaries, wages, bonuses and other compensation (including fringe benefits, vacation, holidays and other paid absence benefits) relating to employees of Landlord or its agents to the extent engaged in the management, operation, repair, or maintenance of the Building and/or Common Areas of the Complex;

(11) fees for legal, accounting (including, without limitation, any outside audit as Landlord may elect in its sole and absolute discretion), inspection and consulting services;

(12) the cost of operating, repairing and maintaining the Building elevators;

(13) the cost of porters, guards, alarm (including any central station signaling systems) and other protection services;

(14) the cost of establishing and maintaining the Building's directory board;

(15) payments for general maintenance and repairs to the plant and equipment supplying climate control to the Building and Common Areas of the Complex;

(16) the cost of supplying all services pursuant to Article 11 hereof to the extent such services are not paid by individual tenants;

(17) costs of all maintenance and repair of cleaning equipment, master utility meters, and all other fixtures, equipment and facilities serving or comprising the Building and Common Areas of the Complex (including any equipment leasing costs associated therewith if applicable);

(18) community association dues, assessments and charges and property owners' association dues, assessments and charges which may be imposed upon Landlord by virtue of any recorded instrument affecting title to the Building, including without limitation, any reciprocal easement agreement and covenants, conditions, easements and restrictions of record, and the cost of any licenses, permits and inspection fees;

(19) all non-capital costs to upgrade, improve or change the utility, efficiency or capacity of any utility or telecommunication system serving the Building and the Common Areas of the Complex;

(20) the repair and replacement, resurfacing and/or repaving of any paved areas, curbs or gutters within the Building or Common Areas of the Complex;

(21) the repair and replacement of any equipment or facilities serving or located within the Complex;

(22) the cost of any capital repairs, improvements and replacements made by the Landlord to the Building or Common Areas of the Complex ("**Capital Costs**") which are (a) required to be made in order to conform to changes subsequent to the Commencement Date in any applicable laws, ordinances, rules, regulations, or orders of any governmental authority having jurisdiction over the Building or Common Areas ("**laws**"), (b) incurred for the purpose of reducing other operating expenses or utility costs, but only to the extent of the anticipated reduction or actual reduction, whichever is greater. The Capital Costs shall be

includable in Operating Costs each year only to the extent of that fraction allocable to the year in question calculated by amortizing such Capital Cost over the reasonably useful life of the improvement resulting therefrom, as determined by Landlord in accordance with reasonable real estate accounting and management principles, consistently applied, with interest on the unamortized balance at the higher of (i) eight percent (8%) per annum; or (ii) the interest rate as may have been paid by Landlord for the funds borrowed for the purpose of performing the work for which the Capital Costs have been expended, but in no event to exceed the highest rate permissible by law; and

(23) Insurance Costs.

Operating Costs shall not include legal, accounting or other professional expenses incurred expressly for negotiating, preparing or enforcing a lease with a particular tenant, or as a result of a default of a specific tenant. Notwithstanding anything to the contrary above, Operating Costs shall further exclude the following:

(a) interest, principal, points and fees on debts or amortization on any mortgage or mortgages or any other debt instrument encumbering the Building or the Leased Premises;

(b) the amount of Operating Costs as are recovered from insurance proceeds or which were required by the Lease to be covered by insurance or which were paid for directly by Tenant or any third party other than as part of such party's pro rata share of such costs;

(c) Costs arising from Landlord's charitable or political contributions;

(d) Brokers' or other leasing commissions and costs incurred in connection with entering into new leases or disputes under existing leases;

(e) costs associated with bad debt losses;

(f) expenses for any item or service not provided, offered or available to Tenant, but provided exclusively to certain other tenants in the Building;

(g) depreciation and amortization on any mortgage;

(h) any ground lease or underlying lease payments;

(i) marketing costs including leasing commissions, attorneys' fees in connection with the negotiation and preparation of letters, deal memos, letters of intent, leases, subleases and/or assignments, space planning costs, and other costs and expenses incurred in connection with lease, sublease and/or assignment negotiations and transactions with present or prospective tenants or other occupants of the Building;

(j) costs for acquisition of sculpture, paintings or other objects of art, except to the extent to replace, when necessary, any sculpture, paintings or other objects of art existing at the Complex as of the date of this Lease so long as such item replaced is of like kind and quality;

(k) any costs, fines or penalties incurred due to violations by Landlord of any legal requirement which may have been in effect as of the Commencement Date of this Lease;

(l) costs for the removal or abatement of Hazardous Materials to the extent required by applicable law to be removed or abated; provided, however, that (A) the costs of routine monitoring of and testing for hazardous materials in, on, or about the Building, and (B) costs incurred in the cleanup or remediation of *de minimis* amounts of hazardous materials customarily used in office buildings or used to operate motor vehicles and customarily found in parking facilities shall be included as Operating Costs;

(m) expenses for tenant improvement work or allowances, inducements, and other concessions for any tenant;

(n) the cost of any repairs, improvements, or replacements made to remedy any structural defect in the original design or construction of the Building or other buildings in the Complex;

(o) any capital costs, including capital repairs, improvements and replacements made to the Building and capital repairs, improvements and replacements of Building equipment or systems, except as expressly provided in clause (22) of the definition of Operating Costs above.

Notwithstanding anything to the contrary contained in this Lease, there shall be no duplication of costs, charges or expenses required to be paid by Tenant pursuant to this Lease.

"**Proportionate Share**" or "**Pro Rata Percent**" shall be that fraction (converted to a percentage) the numerator of which is the Rentable Area (hereinafter defined) of the Leased Premises and the denominator of which is the Rentable Area of the Building, as each may exist from time to time. Tenant's Proportionate Share as of the commencement of the Term hereof is specified in Section 1.13. Notwithstanding the preceding provisions of this Section, Tenant's Proportionate Share as to certain expenses may be calculated differently to yield a higher percentage share for Tenant as to certain expenses in the event Landlord permits other tenants in the Building to directly incur such expenses rather than have Landlord incur the expense in common for the Building (such as, by way of illustration, wherein a tenant performs its own janitorial services). In such case Tenant's proportionate share of the applicable expense shall be calculated as having as its denominator the Rentable Area of all floors rentable to tenants in the Building less the Rentable Area of tenants who have incurred such expense directly. In any case in which Tenant, with Landlord's consent, incurs such expenses directly, Tenant's proportionate share will be calculated specially so that expenses of the same character which are incurred by Landlord for the benefit of other tenants in the Building shall not be prorated to Tenant. Nothing herein shall imply that Landlord will permit Tenant or any other tenant of the Building to incur any Operating Costs. Any such permission shall be in the sole discretion of the Landlord, which Landlord may grant or withhold in its arbitrary judgment.

"**Real Estate Taxes**" or "**Taxes**" mean all federal, state, county, or local governmental or municipal 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 assessments, transit taxes, leasehold taxes or taxes based upon the receipt of rent, including gross receipts or sales taxes applicable to the receipt of rent, unless required to be paid by Tenant, personal property taxes imposed upon the fixtures, machinery, equipment, apparatus, systems and equipment, appurtenances, furniture and other personal property used in connection with the Complex, or any portion thereof except for any personal property tax paid by Tenant for its personal property), which shall be paid or accrued during any Lease Year (without regard to any different fiscal year used by such governmental or municipal authority) because of or in connection with the ownership, leasing and operation of the Complex, or any portion thereof. Taxes shall include, without limitation: (i) Any tax on the rent, right to rent or other income from the Complex, or any portion thereof, or as against the business of leasing the Complex, or any portion thereof; (ii) 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 real property tax, it being acknowledged by Tenant and Landlord that Proposition 13 was adopted by the voters of the State of California in the June 1978 election ("**Proposition 13**") and that assessments, taxes, fees, levies and charges may be imposed by governmental agencies for such services as fire protection, street, sidewalk and road maintenance, refuse removal and for other governmental services formerly provided without charge to property owners or occupants, and, in further recognition of the decrease in the level and quality of governmental services and amenities as a result of Proposition 13; and (iii) Any assessment, tax, fee, levy, or charge allocable to or measured by the area of the leasable premises or the rent payable hereunder, including, without limitation, any business or gross income tax or excise tax with respect to the receipt of such rent, or upon or with respect to the possession, leasing, operating, management, maintenance, alteration, repair, use or occupancy by a tenant of leased premises, or any portion thereof. Taxes shall also include any

governmental or private assessments or the Complex's contribution towards a governmental or private cost-sharing agreement for the purpose of augmenting or improving the quality of services and amenities normally provided by governmental agencies. Any reasonable costs and expenses (including, without limitation, reasonable attorneys' and consultants' fees) incurred in attempting to protest, reduce or minimize Taxes shall be included in Taxes in the Lease Year such expenses are incurred. Notwithstanding anything to the contrary, there shall be excluded from Taxes all excess profits taxes, franchise taxes, gift taxes, capital stock taxes, inheritance and succession taxes, estate taxes, federal and state income taxes, and other taxes to the extent applicable to Landlord's general or net income (as opposed to rents, receipts or income attributable to operations at the Building). With respect to any special assessments which may be levied as part of the Taxes and which may be payable in installments over a period of time, only the amount of the installments due each year shall be included in the Taxes charged to Tenant, whether or not Landlord elects to pay in installments, provided that Landlord has the option of paying said assessment in installments over a period of time (and if Landlord is not permitted to pay the same over time, only the amount which is equitable allocated to the Lease Year shall be passed through).

"**Rent**" "**rent**" or "**rental**" means Minimum Monthly Rent and all other sums required to be paid by Tenant pursuant to the terms of this Lease.

"**Rentable Area**" as used in the Lease shall be determined as follows:

(a) Single Tenant Floor. As to each floor of the Building on which the entire space rentable to tenants is or will be leased to one tenant, Rentable Area shall be the entire area bounded by the inside surface of the exterior glass walls on such floor, including all areas used for elevator lobbies, corridors, special stairways, special elevators, restrooms, mechanical rooms, electrical rooms and telephone closets, without deduction for columns and other structural portions of the Building or vertical penetrations that are included for the special use of Tenant, but excluding the area contained within the interior walls of the Building stairs, fire towers, vertical ducts, elevator shafts, flues, vents, stacks, pipe shafts, and the rentable square footage described in Paragraph (c) below.

(b) Multi-Tenant Floor. As to each floor of the Building on which space is or will be leased to more than one tenant, Rentable Area attributable to each such lease shall be the total of (i) the entire area included within the Leased Premises covered by such lease, being the area bounded by the inside surface of any exterior glass walls, the exterior of all walls separating such Leased Premises from any public corridors or other public areas on such floor, and the centerline of all walls separating such Leased Premises from other areas leased or to be leased to other tenants on such floors, (ii) a pro rata portion of the area within the elevator lobbies, corridors, restrooms, mechanical rooms, electrical rooms, telephone closets and their enclosing walls situated on such floor and (iii) the rentable square footage described in Paragraph (c) below.

(c) Building Load. In any event, Rentable Area shall also include Tenant's Proportionate Share of the lobbies of the Building and Tenant's Proportionate Share of the area of the emergency equipment, fire pump equipment, electrical switching gear, telephone equipment and mail delivery facilities serving the Building.

(d) Deemed Square Footage. The Rentable Area of the Leased Premises is deemed to be the square footage set forth in section 1.4 of this Lease as of the date hereof, and Rentable Area of the Building is deemed to be the square footage set forth in section 1.5 hereof.

"**Structural**" as herein used shall mean any portion of the Leased Premises, Building or Common Areas of the Complex which provides bearing support to any other integral member of the Leased Premises, Building or Common Areas of the Complex such as, by limitation, the roof structure (trusses, joists, beams), posts, load bearing walls, foundations, girders, floor joists, footings, and other load bearing members constructed by Landlord.

"**Tenant Improvements**" shall mean the Tenant Improvements, if any, as defined in Exhibit C attached hereto to be constructed pursuant to Exhibit C attached hereto.

ARTICLE 3 PREMISES AND COMMON AREAS

3.1 Demising Clause. Landlord hereby leases to Tenant, and Tenant hires from Landlord the Leased Premises, consisting of the approximate square footage listed in Section 1.4 of the Salient Lease Terms, which the parties agree shall be deemed the actual square footage.

3.2 Reservation. Landlord reserves the area beneath and above the Building as well as the exterior thereof together with the right to install, maintain, use, repair and replace pipes, ducts, conduits, wires, and structural elements leading through the Leased Premises serving other parts of the Building and Common Areas of the Complex, so long as such items are concealed by walls, flooring or ceilings. Such reservation in no way affects the maintenance obligations imposed herein. Landlord may change the shape, size, location, number and extent of the improvements to any portion of the Building or Common Areas of the Complex and/or the address or name of the Building without the consent of Tenant, provided the same do not materially impair Tenant's ability to conduct its business at the Leased Premises.

3.3 Covenants, Conditions and Restrictions. The parties agree that this Lease is subject to the effect of (a) any covenants, conditions, restrictions, easements, mortgages or deeds of trust, ground leases, rights of way of record, and any other matters or documents of record; (b) any zoning laws of the city, county and state where the Complex is situated; and (c) general and special taxes not delinquent. Tenant agrees that as to its leasehold estate, Tenant and all persons in possession or holding under Tenant will conform to and will not violate the terms of any covenants, conditions or restrictions of record which may now or hereafter encumber the Building or the Complex (hereinafter the "**restrictions**"). This Lease is subordinate to the restrictions.

3.4 Common Areas. Landlord hereby grants to Tenant, for the benefit of Tenant and its employees, suppliers, shippers, customers and invitees, during the Term of this Lease, the non-exclusive right to use, in common with others entitled to such use, the Common Areas as they exist from time to time, subject to any rights, powers, and privileges reserved by Landlord under the terms hereof or under the terms of any rules and regulations or restrictions governing the use of the Building or the Complex and subject to the limitation on the number of parking spaces allocated to Tenant. Under no circumstances shall the right herein granted to use the Common Areas be deemed to include the right to store any property, temporarily or permanently, in the Common Areas. Any such storage shall be permitted only by the prior written consent of Landlord or Landlord's designated agent, which consent may be revoked at any time. In the event that any unauthorized storage shall occur then Landlord shall have the right, without notice, in addition to such other rights and remedies that it may have, to remove the property and charge the cost to Tenant, which cost shall be immediately payable upon demand by Landlord.

(a) Common Areas Changes. Landlord shall have the right, in Landlord's sole discretion, from time to time, provided the same do not materially impair Tenant's ability to conduct its business at the Leased Premises:

(1) To make changes and reductions to the Common Areas, including, without limitation, changes in the location, size, shape and number of driveways, entrances, parking spaces, parking areas, loading and unloading areas, ingress, egress, direction of traffic, landscaped areas and walkways;

(2) To close temporarily any of the Common Areas for maintenance purposes so long as reasonable access to the Leased Premises remains available;

(3) To designate other land outside the boundaries of the Building to be a part of the Common Areas;

(4) To add additional improvements to the Common Areas;

(5) To use the Common Areas while engaged in making additional improvements, repairs or alterations to the Building or Complex, or any portion thereof;

(6) To do and perform such other acts and make such other changes in, to or with respect to the Common Areas, Building and Complex as Landlord may, in the exercise of sound business judgment, deem to be appropriate.

(b) Common Area Maintenance. Landlord shall, in Landlord's sole but reasonable discretion, maintain the Common Areas (subject to reimbursement pursuant to this Lease) in good working order and condition, establish and enforce reasonable rules and regulations concerning such areas, close any of the Common Areas to whatever extent required in the opinion of Landlord's counsel to prevent a dedication of any of the Common Areas or the accrual of any rights of any person or of the public to the Common Areas, close temporarily any of the Common Areas for maintenance purposes, and make changes to the Common Areas including, without limitation, changes in the location of driveways, corridors, entrances, exits, the designation of areas for the exclusive use of others (provided such designation of exclusive use areas does not materially and adversely affect Tenant's use of or access to the Leased Premises), the direction of the flow of traffic or construction of additional buildings thereupon. Landlord may provide security for the Common Areas, but is not obligated to do so. Under no circumstances shall Landlord be liable or responsible for any acts or omissions of any party providing any services to the Common Areas, Building or other improvements, including, without limitation, any security service, notwithstanding anything to the contrary contained in this Lease.

(c) Parking. Provided Tenant is not in default or breach of any term or provision of this Lease and has not vacated the Leased Premises, Tenant is allocated and shall have the non-exclusive and non-preferential right on an unassigned and unreserved basis to use not more than the number of parking spaces specified in Section 1.16 hereof (the "**Parking Spaces**") for use by Tenant and Tenant's Parties (hereinafter defined), while Tenant's Parties are performing work or services for Tenant at the Leased Premises. The location of the Parking Spaces may be designated from time to time by Landlord. At no time, may Tenant or any of Tenant's Parties use more than the number of Parking Spaces specified above.

(1) General Procedures. The Parking Spaces will not be separately identified; however Landlord reserves the right in its reasonable discretion to separately identify by signs or other markings the area where Tenant's Parking Spaces will be located. Landlord shall have no obligation to monitor the use of the parking area, nor shall Landlord be responsible for any loss or damage to any vehicle or other property or for any injury to any person. Said Parking Spaces shall be used only for parking of automobiles no larger than full size passenger automobiles, sport utility vehicles or small pick-up trucks. Tenant shall comply with all rules and regulations which may be adopted by Landlord from time to time. Tenant shall not at any time use more parking spaces than the number allocated to Tenant or park vehicles or the vehicles of others in any portion of the Complex reasonably designated by Landlord as exclusive parking area for others. Tenant shall be responsible for and breach or violation by Tenant's Parties of the parking regulations and requirements in this Lease. Tenant shall not have the exclusive right to use any specific parking space. If Landlord grants to any other tenant the exclusive right to use any particular parking space(s), Tenant shall not use such spaces. All trucks (other than pick-up trucks) and delivery vehicles shall be (i) temporarily parked for loading and unloading in a location designated by Landlord and otherwise in a manner which does not interfere with the businesses of other occupants of the Complex, and (ii) permitted to remain on the Complex only so long as is reasonably necessary to complete loading and unloading. In the event Landlord elects in its sole and absolute discretion or is required by any law to limit or control parking in the Complex, whether by validation of parking tickets or any other method of assessment, Tenant agrees to participate in such validation or assessment program under such reasonable rules and regulations as are from time to time established by Landlord. Notwithstanding the foregoing, Tenant shall not be required to pay for the use of parking spaces; provided, however the foregoing is not intended to limit Tenant's obligations regarding Operating Costs. Landlord may temporarily

close off or restrict access to the parking areas from time to time as reasonably necessary to facilitate construction, alteration, or improvements, without incurring any liability to Tenant and without any abatement of Rent under this Lease. Tenant's continued right to use the Parking Spaces is conditioned on Tenant's abiding by all rules and regulations prescribed from time to time for the orderly operation and use of the parking facility. Tenant shall use all reasonable efforts to ensure that Tenant's employees and visitors also comply with such rules and regulations.

(2) Identification. Tenant shall furnish Landlord with a list of its employees' vehicle license numbers within fifteen (15) days after taking possession of the Leased Premises and thereafter shall notify Landlord of any changes within fifteen (15) days after request by Landlord. Landlord also reserves the right to implement a system requiring that all employees of Tenant attach a parking sticker or parking permit to their vehicles.

(3) Condition. Tenant's right to use the number of allocated Parking Spaces under Section 3.4(c) and all subsections thereof are expressly conditioned upon Tenant being in occupancy of the Leased Premises.

(4) Remedies. Tenant acknowledges and agrees that a breach of the parking provisions by Tenant or any of Tenant's Parties may seriously interfere with Landlord's operation of the Complex and with the rights or occupancy by other tenants of the Complex. Accordingly, Landlord may suffer damages that are not readily ascertainable. Therefore, if Tenant or any of Tenant's Parties use more than the number of allocated Parking Spaces, or park other than as designated by Landlord for the Parking Spaces, or otherwise fail to comply with any of the foregoing provisions, then Landlord, in addition to any other rights or remedies available at law or in equity or under the Lease, may charge Tenant, as liquidated damages, Twenty-Five Dollars ($25.00) per day during the continuance of each violation during a calendar year after Tenant has been previously notified on two or more occasions during such calendar of a violation, or for each violation that is not cured within one (1) business day's notice of such violation, and Tenant shall pay such charge within thirty (30) days after request by Landlord. Each vehicle parked in violation of the foregoing provisions shall be deemed a separate violation. In addition, Landlord may immobilize and/or tow from the Complex any vehicle parked in violation hereof, and/or attach violation stickers or notices to such vehicle. The out of pocket cost to remove any such vehicle shall be paid by Tenant within thirty (30) days after request by Landlord. Landlord reserves the right in its sole and absolution discretion to have the parking areas operated by a third party and Tenant shall comply with the rules and regulations of such parking operator.

ARTICLE 4 TERM AND POSSESSION

4.1 Commencement Date. The Term of this Lease shall commence on the Commencement Date and shall be for the Term specified in Section 1.8 hereof (which includes as set forth in Section 1.8 any partial month at the commencement of the Term if the Term commences other than on the first day of the calendar month).

4.2 Acknowledgment of Commencement. After delivery of the Leased Premises to Tenant, Tenant shall execute a written acknowledgment of the date of commencement in the form attached hereto as Exhibit D, and by this reference it shall be incorporated herein. The failure or delay by Landlord to request such acknowledgment or the failure or delay by Tenant in executing and delivery such acknowledgement shall not delay or extend the Commencement Date.

4.3 Pre-Term Possession. Landlord will endeavor to permit Tenant to have early access to the Leased Premises approximately four (4) weeks prior to the Commencement Date for Tenant to make arrangements for the move into the Leased Premises, to perform certain alterations, and to allow Tenant to install its furniture, fixtures and equipment, provided, however, that any such early access shall not interfere or delay with the construction of the Tenant Improvements. Such early access will be provided in a written notice from Landlord to Tenant. Such early access by Tenant, or any agent, employee or contractor of Tenant, to the

Leased Premises prior to the Commencement Date shall be subject to all the provisions of this Lease (other than the payment of Minimum Monthly Rent, Operating Cost and Taxes, and the start of the Minimum Rent Abatement Period), including, without limitation, Tenant's compliance with the insurance and indemnity requirements of this Lease. Said early access shall not advance the termination date of this Lease. Tenant agrees that it shall not in any way interfere with the progress of the Tenant Improvements. Should such access prove an impediment to the progress of the Tenant Improvements, in Landlord's reasonable judgment, Landlord may demand that Tenant forthwith vacate the Leased Premises until such time as Landlord's work is complete, and Tenant shall immediately comply with this demand. Tenant shall comply with all terms and conditions of this Lease during the course of any pre-term possession, except as provided above.

4.4 Delay. If Landlord, for any reason whatsoever, cannot deliver possession of the Leased Premises to Tenant with the Tenant Improvements Substantially Completed at the Estimated Commencement Date, this Lease shall not be void or voidable, nor shall Landlord be liable for any loss or damage resulting therefrom, but in that event, there shall be no accrual of Rent for the period between the Estimated Commencement Date and the Commencement Date, except if the delay is due to a Tenant Delay. For each of day beyond the date which is sixty (60) days following the Estimated Commencement Date (the "**Outside Delivery Date**") that the Commencement Date has not occurred (other than to the extent caused directly by any Tenant Delay or Force Majeure), then in addition to the delay of the Commencement Date Tenant shall receive a credit against Base Rent from and after the Commencement Date equal to one (1) day of Base Rent for each such day of delay beyond the Outside Delivery Date.

4.5 Condition and Acceptance of Work. Landlord agrees to deliver possession of the Leased Premises to Tenant in broom clean condition with the base Building HVAC, electrical and plumbing systems serving the Leased Premises in good operating condition. Within thirty (30) days following the date Tenant takes possession of the Leased Premises, Tenant may provide Landlord with a punch list which sets forth any corrective work to be performed by Landlord with respect to work performed by Landlord; provided, however, that Tenant's obligation to pay Rent and other sums under this Lease shall not be affected thereby. If Tenant fails to submit a punch list to Landlord within such thirty (30) day period, Tenant agrees that by taking possession of the Leased Premises it will conclusively be deemed to have inspected the Leased Premises and found the Leased Premises in satisfactory condition, with all work required of Landlord completed. Tenant acknowledges that neither Landlord, nor any agent, employee or servant of Landlord, has made any representation or warranty, expressed or implied, with respect to the Leased Premises, Building or Common Areas of the Complex, except as specifically provided in this Lease or with respect to the suitability of them to the conduct of Tenant's business, nor has Landlord agreed to undertake any modifications, alterations, or improvements of the Leased Premises, Building or Common Areas of the Complex, except as specifically provided in this Lease.

4.6 Failure to Take Possession. Tenant's inability or failure to take possession of the Leased Premises when delivery is tendered by Landlord shall not delay the Commencement Date of the Lease or Tenant's obligation to pay Rent.

ARTICLE 5 MINIMUM MONTHLY RENT

5.1 Payment. Tenant shall pay to Landlord at the address specified in Section 1.1, or at such other place as Landlord may otherwise designate, as "Minimum Monthly Rent" for the Leased Premises the amount specified in Section 1.9 hereof, payable in advance on the first day of each month during the Term of the Lease. If the Term commences on other than the first day of a calendar month, the rent for the first partial month shall be prorated accordingly. All payments of Minimum Monthly Rent (including sums defined as rent in Section 2) shall be in lawful money of the United States, and payable without deduction, offset, counterclaim, prior notice or demand.

5.2 Advance Rent. The first full month's rent shall be paid by Tenant to Landlord upon the execution of this Lease as advance rent, provided, however, that such amount shall be held by Landlord as an additional "Security Deposit" pursuant to this Lease until it is applied by Landlord to the first Minimum Monthly Rent due hereunder.

5.3 Late Payment. If during any twelve (12) month period, Tenant fails to pay Rent within five (5) business days after receipt of notice that payment is past due on more than three occasions, then Landlord may, by giving written notice to Tenant, require that Tenant pay the Minimum Monthly Rent and other Rent to Landlord quarterly in advance.

ARTICLE 6 ADDITIONAL RENT

6.1 Personal Property, Gross Receipts, Leasing Taxes. This section is intended to deal with impositions or taxes directly attributed to Tenant or this transaction, as distinct from taxes attributable to the Building or Common Areas of the Complex which are to be allocated among various tenants and others. Tenant shall pay before delinquency any and all taxes, assessments, license fees and public charges levied, assessed or imposed against Tenant or Tenant's estate in this Lease or the property of Tenant situated within the Leased Premises which become due during the Term. On demand by Landlord, Tenant shall furnish Landlord with satisfactory evidence of these payments. If such taxes are included in the bill for the Real Estate Taxes for the Building or Complex, then Tenant shall pay to Landlord as additional rent the amount of such taxes within thirty (30) days after demand from Landlord.

6.2 Operating Costs and Taxes.

(a) Base Year Increases. If the Operating Costs and Taxes for any Lease Year, calculated on the basis of the greater of (i) actual Operating Costs and Taxes; or (ii) as if the Building were at least one hundred percent (100%) occupied and operational for the whole of such Lease Year, are more than the applicable Base Year Costs for Base Operating Costs and Base Taxes as set forth in section 1.10 (which Base Year Costs shall be calculated separately Operating Costs and Taxes), Tenant shall pay to Landlord its Proportionate Share of any such increase in Operating Costs and/or Taxes, as the case may be, as additional Rent as hereinafter provided.

(b) Partial Year. If any Lease Year of less than twelve (12) months is included within the Term, the amount payable by Tenant for such period shall be prorated on a per diem basis based on the actual number of days in the year).

6.3 Method of Payment. Any additional Rent payable by Tenant under Sections 6.1 and 6.2 hereof shall be paid as follows, unless otherwise provided:

(a) Estimated Monthly. During the Term, Tenant shall pay to Landlord monthly in advance with its payment of Minimum Monthly Rent, one-twelfth (l/12th) of the amount of such additional Rent as estimated by Landlord in advance, in good faith, to be due from Tenant. If at any time during the course of the fiscal year, Landlord determines that Operating Costs and/or Taxes are projected to vary from the then estimated costs for such items by more than ten percent (10%), Landlord may, by written notice to Tenant, revise the estimated Operating Costs and/or Taxes for the balance of such fiscal year, and Tenant's monthly installments for the remainder of such year shall be adjusted so that by the end of such fiscal year Tenant will have paid to Landlord Tenant's Proportionate Share of the such revised expenses for such year.

(b) Annual Reconciliation. Annually, as soon as is reasonably possible after the expiration of each Lease Year, Landlord shall prepare in good faith and deliver to Tenant a comparative statement (the "**Annual Statement**") setting forth (1) the Operating Costs, Taxes and Insurance Costs for such Lease Year, and (2) the amount of additional Rent as determined in accordance with the provisions of this Article 6.

(c) Adjustment. If the aggregate amount of such estimated additional Rent payments made by Tenant in any Lease Year should be less than the additional Rent due for such year, then Tenant shall pay to

Landlord as additional Rent upon demand the amount of such deficiency. If the aggregate amount of such additional Rent payments made by Tenant in any Lease Year of the Term should be greater than the additional Rent due for such year, then should Tenant not be otherwise in default hereunder, the amount of such excess will be applied by Landlord to the next succeeding installments of such additional Rent due hereunder; and if the Term has expired and there is any such excess for the last year of the Term, the amount thereof will be refunded by Landlord to Tenant within sixty (60) days of the last day of the Term, provided Tenant is not otherwise in default under the terms of this Lease.

(d) Inspection. Tenant shall have the right at its own expense to inspect the books and records of Landlord pertaining to Operating Costs, Insurance Costs and Taxes once in any calendar year by any employee of Tenant or by a certified public accountant mutually acceptable to Landlord and Tenant (provided such certified public accountant charges for its service on an hourly basis and not based on a percentage of any recovery or similar incentive method) at reasonable times, and upon reasonable written notice to Landlord as hereinafter provided. Tenant's right to inspect such books and records is conditioned upon Tenant first paying Landlord the full amount billed by Landlord. Within ninety (90) days after receipt of Landlord's annual reconciliation of Operating Costs, Insurance Costs and Taxes, Tenant shall have the right, after at least thirty (30) days prior written notice to Landlord, to inspect at the offices of Landlord or its property manager, the books and records of Landlord pertaining solely to the Operating Costs, Insurance Costs and Taxes for the immediately preceding calendar year covered in such annual reconciliation statement. All expenses of the inspection shall be borne by Tenant and must be completed within fifteen (15) days after commencement of such inspection. If Tenant's inspection reveals a discrepancy in the comparative annual reconciliation statement, Tenant shall deliver a copy of the inspection report and supporting calculations to Landlord within thirty (30) days after completion of the inspection. If Tenant and Landlord are unable to resolve the discrepancy within thirty (30) days after Landlord's receipt of the inspection report, either party may upon written notice to the other have the matter decided by an inspection by an independent certified public accounting firm approved by Tenant and Landlord (the "**CPA Firm**"), which approval shall not be unreasonably withheld or delayed. If the inspection by the CPA Firm shows that the actual aggregate amount of Operating Costs, Insurance Costs or Taxes payable by Tenant is greater than the amount previously paid by Tenant for such accounting period, Tenant shall pay Landlord the difference within thirty (30) days. If the inspection by the CPA Firm shows that the actual applicable amount is less than the amount paid by Tenant, then the difference shall be applied in payment of the next estimated monthly installments of Operating Costs, Insurance Costs and/or Taxes owing by Tenant, or in the event such accounting occurs following the expiration of the Term hereof, such difference shall be refunded to Tenant. Tenant shall pay for the cost of the inspection by the CPA Firm, unless such inspection shows that Landlord overstated the aggregate amount Operating Costs, Insurance Costs or Taxes by more than five percent (5%), in which case Landlord shall pay for the cost of the inspection by the CPA Firm. Tenant acknowledges and agrees that any information revealed in the above described inspection may contain proprietary and sensitive information and that significant damage could result to Landlord if such information were disclosed to any party other than Tenant's auditors. Tenant shall not in any manner disclose, provide or make available any information revealed by the inspection to any person or entity without Landlord's prior written consent, which consent may be withheld by Landlord in its sole and absolute discretion.

ARTICLE 7 ACCORD AND SATISFACTION

7.1 Acceptance of Payment. No payment by Tenant or receipt by Landlord of a lesser amount of Minimum Monthly Rent or any other sum due hereunder, shall be deemed to be other than on account of the earliest due rent or payment, nor shall any endorsement or statement on any check or any letter accompanying any such check or payment 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 payment or pursue any other remedy available in this Lease, at law or in equity. Landlord may accept any partial payment from Tenant without invalidation of any contractual notice required to be given herein (to the extent such contractual notice is required) and without invalidation of any notice required to be given pursuant to California Code of Civil Procedure Section 1161, et seq., or of any successor statute thereto.

ARTICLE 8 SECURITY DEPOSIT

8.1 Payment on Lease Execution. Tenant shall pay Landlord upon execution hereof the sum specified in the Salient Lease Terms as a Security Deposit. This sum is designated as a Security Deposit and shall remain the sole and separate property of Landlord until actually repaid to Tenant (or at Landlord's option the last assignee, if any, of Tenant's interest hereunder), said sum not being earned by Tenant until all conditions precedent for its payment to Tenant have been fulfilled. As this sum both in equity and at law is Landlord's separate property, Landlord shall not be required to (1) keep said deposit separate from his general accounts, or (2) pay interest, or other increment for its use. If Tenant fails to pay rent or other charges when due hereunder, or otherwise defaults with respect to any provision of this Lease, including and not limited to Tenant's obligation to restore or clean the Leased Premises following vacation thereof, Tenant, at Landlord's election, shall be deemed not to have earned the right to repayment of the Security Deposit, or those portions thereof used or applied by Landlord for the payment of any rent or other charges in default, or for the payment of any other sum to which Landlord may become obligated by reason of Tenant's default, or to compensate Landlord for any loss or damage which Landlord may suffer thereby. Landlord may retain such portion of the Security Deposit as it reasonably deems necessary to restore or clean the Leased Premises following vacation by Tenant. The Security Deposit is not to be characterized as rent until and unless so applied in respect of a default by Tenant. Tenant hereby waives the provisions of Section 1950.7 of the California Civil Code, and all other provisions of law, now or hereafter in force, which provide that Landlord may claim from a security deposit only those sums reasonably necessary to remedy defaults in the payment of rent, to repair damage caused by Tenant or to clean the Leased Premises, it being agreed that Landlord may, in addition, claim those sums reasonably necessary to compensate Landlord for any other loss or damage, foreseeable or unforeseeable, caused by the act or omission of Tenant or any officer, employee, agent or invitee of Tenant.

8.2 Restoration of Deposit. If Landlord elects to use or apply all or any portion of the Security Deposit as provided in Section 8.1, Tenant shall within ten (10) days after written demand therefor pay to Landlord in cash, an amount equal to that portion of the Security Deposit used or applied by Landlord, and Tenant's failure to so do shall be a material breach of this Lease. The ten (10) day notice specified in the preceding sentence shall insofar as not prohibited by law, constitute full satisfaction of notice of default provisions required by law or ordinance. Should Tenant faithfully and fully comply with all of the terms, covenants and conditions of this Lease, within thirty (30) days following the expiration of the Term and Tenant having vacated the Premises, the Security Deposit or any balance thereof shall be returned to Tenant or, at the option of Landlord, to the last assignee of Tenant's interest in this Lease.

ARTICLE 9 USE

9.1 Permitted Use. The Leased Premises may be used and occupied only for the purposes specified in Section 1.12 hereof, and for no other purpose or purposes. Tenant shall promptly comply with all laws, ordinances, orders and regulations affecting the Leased Premises, their cleanliness, safety, occupation and use. Tenant shall not use, or permit to be used, the Leased Premises in any manner that will unreasonably disturb any other tenant in the Building or Complex, or obstruct or interfere with the rights of other tenant or occupants of the Building or Complex, or injure or annoy them or create any unreasonable smells, noise or vibrations (taking into account the nature and tenant-mix of the Building). Tenant shall not do, permit or suffer in, on, or about the Leased Premises the sale of any alcoholic liquor without the written consent of Landlord first obtained. Tenant shall not allow the Leased Premises to be used for any improper, unlawful or objectionable purpose.

9.2 Safes, Heavy Equipment. Tenant shall not place a load upon any floor of the Leased Premises which exceeds the lesser of fifty (50) pounds per square foot live load or such other amount specified in writing by Landlord from time to time. Landlord reserves the right to prescribe the weight and position of all safes and heavy installations which Tenant wishes to place in the Leased Premises so as properly to distribute the weight thereof, or to require plans prepared by a qualified structural engineer at Tenant's sole cost and expense for such heavy objects. Notwithstanding the foregoing, Landlord shall have no liability for any damage caused by the installation of such heavy equipment or safes.

9.3 Machinery. Business machines and mechanical equipment belonging to Tenant which cause noise and/or vibration that may be transmitted to the structure of the Building or to any other leased space to such a degree as to be objectionable to Landlord or to any tenants in the Complex shall be placed and maintained by the party possessing the machines or equipment, at such party's expense, in settings of cork, rubber or spring type noise and/or vibration eliminators, and Tenant shall take such other measures as needed to eliminate vibration and/or noise. If the noise or vibrations cannot be eliminated, Tenant must remove such equipment within ten (10) days following written notice from Landlord.

9.4 Waste or Nuisance. Tenant shall not commit, or suffer to be committed, any waste upon the Leased Premises, or any nuisance, or other act or thing which may disturb the quiet enjoyment of any other tenant or occupant of the Complex in which the Leased Premises are located.

9.5 Access. Tenant shall have access to the Leased Premises twenty-four hours a day, seven days a week, subject to any security requirements and regulations that may be in effect at the time. Tenant acknowledges and agrees that it shall use the card-key system currently in place for entry into the Building and into the Leased Premises.

ARTICLE 10 COMPLIANCE WITH LAWS AND REGULATIONS

10.1 Compliance Obligations.

(a) Tenant shall, at its sole cost and expense, comply with all of the requirements of all municipal, state and federal authorities now in force, or which may hereafter be in force, pertaining to Tenant's use of the Leased Premises or the operation of Tenant's business, and shall faithfully observe in the use or occupancy of the Leased Premises all municipal ordinances and state and federal statutes, laws and regulations now or hereafter in force, including, without limitation, the "Environmental Laws" (as hereinafter defined), and the Americans with Disabilities Act, 42 U.S.C. §§ 12101-12213 (and any rules, regulations, restrictions, guidelines, requirements or publications promulgated or published pursuant thereto), whether or not any of the foregoing were foreseeable or unforeseeable at the time of the execution of this Lease. The judgment of any court of competent jurisdiction, or the admission of Tenant in any action or proceeding against Tenant, whether Landlord be a party thereto or not, that any such requirement, ordinance, statute or regulation pertaining to the Leased Premises has been violated, shall be conclusive of that fact as between Landlord and Tenant. As of the Lease Reference Date, Landlord has not received any notification that the Premises, or any portion thereof, is in violation of the ADA, which alleged violation remains uncured.

(b) Landlord shall, as an Operating Cost, comply with all of the applicable requirements of all municipal, state and federal authorities now in force, or which may hereafter be in force, pertaining to the Common Areas of the Building, but only to the extent required by any governmental authority with jurisdiction thereof; provided, if any work is required to comply with any such law as a result of Tenant's use of the Leased Premises or the operation of Tenant's business, or any Alteration made by or on behalf of Tenant, then such work shall be performed by Landlord at the sole cost and expense of Tenant.

10.2 Condition of Leased Premises. Subject to Landlord's work, if any, as referred to in Exhibit C to this Lease, and except as otherwise expressly provided herein, Tenant hereby accepts the Leased Premises in the condition existing as of the date of occupancy, subject to all applicable zoning, municipal, county and state laws, ordinances, rules, regulations, orders, restrictions of record, and requirements in effect during the Term or any part of the Term hereof regulating the Leased Premises, and without representation, warranty or covenant by Landlord, express or implied, as to the condition, habitability or safety of the Leased Premises, the suitability or fitness thereof for their intended purposes, or any other matter.

10.3 Hazardous Materials.

(a) Hazardous Materials. As used herein, the term "**Hazardous Materials**" shall mean any wastes, materials or substances (whether in the form of liquids, solids or gases, and whether or not air-borne), which are or are deemed to be (i) pollutants or contaminants, or which are or are deemed to be hazardous, toxic, ignitable, reactive, corrosive, dangerous, harmful or injurious, or which present a risk to public health or to the environment, or which are or may become regulated by or under the authority of any applicable local, state or federal laws, judgments, ordinances, orders, rules, regulations, codes or other governmental restrictions, guidelines or requirements, any amendments or successor(s) thereto, replacements thereof or publications promulgated pursuant thereto, including, without limitation, any such items or substances which are or may become regulated by any of the Environmental Laws (as hereinafter defined); (ii) listed as a chemical known to the State of California to cause cancer or reproductive toxicity pursuant to Section 25249.8 of the California Health and Safety Code, Division 20, Chapter 6.6 (Safe Drinking Water and Toxic Enforcement Act of 1986); or (iii) a pesticide, petroleum, including crude oil or any fraction thereof, asbestos or an asbestos-containing material, a polychlorinated biphenyl, radioactive material, or urea formaldehyde.

(b) Environmental Laws. In addition to the laws referred to in section 10.3(a) above, the term "**Environmental Laws**" shall be deemed to include, without limitation, 33 U.S.C. Section 1251 et seq., 42 U.S.C. Section 6901 et seq., 42 U.S.C. Section 7401 et seq., 42 U.S.C. Section 9601 et seq., and California Health and Safety Code Section 25100 et seq., and 25300 et seq., California Water Code, Section 13020 et seq., or any successor(s) thereto, all local, state and federal laws, judgments, ordinances, orders, rules, regulations, codes and other governmental restrictions, guidelines and requirements, any amendments and successors thereto, replacements thereof and publications promulgated pursuant thereto, which deal with or otherwise in any manner relate to, air or water quality, air emissions, soil or ground conditions or other environmental matters of any kind.

(c) Use of Hazardous Materials. Tenant agrees that during the Term of this Lease, there shall be no use, presence, disposal, storage, generation, leakage, treatment, manufacture, import, handling, processing, release, or threatened release of Hazardous Materials on, from or under the Leased Premises (individually and collectively, "**Hazardous Use**") except to the extent that, and in accordance with such conditions as, Landlord may have previously approved in writing in its sole and absolute discretion. However, without the necessity of obtaining such prior written consent, Tenant shall be entitled to use and store only those Hazardous Materials which are (i) typically used in the ordinary course of business in an office for use in the manner for which they were designed and in such limited amounts as may be normal, customary and necessary for Tenant's business in the Leased Premises, and (ii) in full compliance with Environmental Laws, and all judicial and administrative decisions pertaining thereto. For the purposes of this Section 10.3(c), the term Hazardous Use shall include Hazardous Use(s) on, from or under the Leased Premises by Tenant or any of its directors, officers, employees, shareholders, partners, business invitees, agents, contractors or occupants (collectively, "**Tenant's Parties**"), whether known or unknown to Tenant, and whether occurring and/or existing during or prior to the commencement of the Term of this Lease.

(d) Compliance. Tenant agrees that during the Term of this Lease Tenant shall not be in violation of any federal, state or local law, ordinance or regulation relating to industrial hygiene, soil, water, or environmental conditions on, under or about the Leased Premises including, but not limited to, the Environmental Laws. As of the Lease Reference Date, Landlord has no actual knowledge, and has not received any notification, that the Complex, the Building, or any portion thereof, is in violation of any Environmental Laws.

(e) Inspection and Testing by Landlord. Landlord shall have the right at all times during the term of this Lease to (i) inspect the Leased Premises and to (ii) conduct tests and investigations to determine whether Tenant is in compliance with the provisions of this Section. Except in case of emergency, Landlord shall give reasonable notice to Tenant before conducting any inspections, tests, or investigations. The cost of all such inspections, tests and investigations shall be borne by Tenant if Tenant is in breach of Section 10.3 of this Lease. Neither any action nor inaction on the part of Landlord pursuant to this Section 10.3(e) shall be deemed in any way to release Tenant from, or in any way modify or alter, Tenant's responsibilities, obligations, and/or liabilities incurred pursuant to Section 10.3 hereof.

10.4 Indemnity. Tenant shall indemnify, hold harmless, and, at Landlord's option (with such attorneys as Landlord may approve in advance and in writing), defend Landlord and Landlord's officers, directors, shareholders, partners, members, managers, employees, contractors, property managers, agents and mortgagees and other lien holders, from and against any and all "Losses" (hereinafter defined) arising from or related to: (a) any violation or alleged violation by Tenant or any of Tenant's Parties of any of the requirements, ordinances, statutes, regulations or other laws referred to in this Article 10, including, without limitation, the Environmental Laws; (b) any breach of the provisions of this Article 10 by Tenant or any of Tenant's Parties; or (c) any Hazardous Use by Tenant or any Tenant Parties on, about or from the Leased Premises of any Hazardous Material approved by Landlord under this Lease. The term "**Losses**" shall mean all claims, demands, expenses, actions, judgments, damages, penalties, fines, liabilities, losses of every kind and nature (including, without limitation, property damage, damages for the loss or restriction on use of any space or amenity within the Building or the Complex, damages arising from any adverse impact on marketing space in the Complex, sums paid in settlement of claims and any costs and expenses associated with injury, illness or death to or of any person), suits, administrative proceedings, costs and fees, including, but not limited to, attorneys' and consultants' fees and expenses, and the costs of cleanup, remediation, removal and restoration, that are in any way related to any matter covered by the foregoing indemnity.

ARTICLE 11 SERVICE AND EQUIPMENT

11.1 Climate Control. So long as Tenant is not in default under any of the covenants of this Lease, Landlord shall provide climate control to the Leased Premises from 8:00 a.m. to 6:00 p.m. (the "**Climate Control Hours**") on weekdays (Saturdays, Sundays and holidays excepted) to maintain a temperature adequate for comfortable occupancy, provided that Landlord shall have no responsibility or liability for failure to supply climate control service when making repairs, alterations or improvements or when prevented from so doing by strikes or any cause beyond Landlord's reasonable control. Any climate control furnished for periods not within the Climate Control Hours pursuant to Tenant's request shall be at Tenant's sole cost and expense in accordance with rate schedules promulgated by Landlord from time to time. As of the Lease Reference Date, the rate for climate control at times other than the Climate Control Hours is Forty Dollars ($40.00) per hour, with a two (2) hour minimum. Upon request, Landlord shall advise Tenant of the then current rate schedule. Tenant acknowledges that Landlord has installed in the Building a system for the purpose of climate control. Any use of the Leased Premises not in accordance with the design standards or any arrangement of partitioning which interferes with the normal operation of such system may require changes or alterations in the system or ducts through which the climate control system operates. Any changes or alterations so occasioned, if such changes can be accommodated by Landlord's equipment, shall be made by Tenant at its cost and expense but only with the written consent of Landlord first had and obtained, and in accordance with drawings and specifications and by a contractor first approved in writing by Landlord. If installation of partitions, equipment or fixtures by Tenant necessitates the re-balancing of the climate control equipment in the Leased Premises, the same will be performed by Landlord at Tenant's expense. Any charges to be paid by Tenant hereunder shall be due within thirty (30) days of receipt of an invoice from Landlord.

11.2 Elevator Service. Landlord shall provide elevator service (which may be with or without operator at Landlord's option) provided that Tenant, its employees, and all other persons using such services shall do so at their own risk.

11.3 Cleaning Public Areas. Landlord shall maintain and keep clean the street level lobbies, sidewalks, truck dock, public corridors and other public portions of the Building.

11.4 Refuse Disposal. Tenant shall pay Landlord, within thirty (30) days of being billed therefor, for the removal from the Leased Premises and the Building of such refuse and rubbish of Tenant as shall exceed that ordinarily accumulated daily in the routine of a reasonable office.

11.5 Janitorial Service. Landlord shall provide cleaning and janitorial service in and about the Complex and Leased Premises five days a week (which is currently scheduled for Monday through Friday, holidays excepted, subject to change by Landlord) in accordance with commercially reasonable standards in an office building in the city in which the Building is located.

11.6 Special Cleaning Service. To the extent that Tenant shall require special or more frequent cleaning and/or janitorial service (hereinafter referred to as "**Special Cleaning Service**") Landlord may, upon reasonable advance notice from Tenant, elect to furnish such Special Cleaning Service and Tenant agrees to pay Landlord, within thirty (30) days of being billed therefor, Landlord's charge for providing such additional service. Special Cleaning Service shall include but shall not be limited to the following to the extent such services are beyond those typically provided pursuant to section 11.5 above:

(a) The cleaning and maintenance of Tenant eating facilities other than the normal and ordinary cleaning and removal of garbage, which special cleaning service shall include, without limitation, the removal of dishes, utensils and excess garbage; it being acknowledged that normal and ordinary cleaning service does not involve placing dishes, glasses and utensils in the dishwasher, cleaning any coffee pot or other cooking mechanism or cleaning the refrigerator or any appliances;

(b) The cleaning and maintenance of Tenant computer centers, including peripheral areas other than the normal and ordinary cleaning and removal of garbage if Tenant so desires;

(c) The cleaning and maintenance of special equipment areas, locker rooms, and medical centers;

(d) The cleaning and maintenance in areas of special security; and

(e) The provision of consumable supplies for private toilet rooms.

11.7 Electrical. During the Term of this Lease, there shall be available to the Leased Premises electrical facilities comparable to those supplied in other comparable office buildings in the vicinity of the Building to provide sufficient power for normal lighting and office machines of similar low electrical consumption, and one personal computer for each desk station, but not for any additional computers or extraordinary data processing equipment, special lighting and any other item of electrical equipment which requires a voltage other than one hundred ten (110) volts single phase and is not typically found in an office, as determined by Landlord in its sole, but reasonable discretion; and provided, however, that if the installation of such electrical equipment requires additional air conditioning capacity above that normally provided to tenants of the Building or above standard usage of existing capacity as determined by Landlord in its sole, but reasonable discretion, then the additional air conditioning installation and/or operating costs attributable thereto shall be paid by Tenant. Tenant agrees not to use any apparatus or device in, upon or about the Leased Premises which may in any way increase the amount of such electricity usually furnished or supplied to the Leased Premises, and Tenant further agrees not to connect any apparatus or device to the wires, conduits or pipes or other means by which such electricity is supplied, for the purpose of using additional or unusual amounts of electricity, without the prior written consent of Landlord. At all times, Tenant's use of electric current shall never exceed Tenant's share of the capacity of the feeders to the Building or the risers or wiring installation. Tenant shall not install or use or permit the installation or use in the Leased Premises of any computer or electronic data processing or ancillary equipment or any other electrical apparatus designed to operate on electrical current in excess of 110 volts and 5 amps per machine, without the prior written consent of Landlord, which consent shall not be unreasonably withheld, conditioned or delayed. If Tenant shall require electrical current in excess of that usually furnished or supplied for use of the Leased Premises as general office space, Tenant shall first procure the written consent of Landlord (which consent shall not be unreasonably withheld, conditioned or delayed) to the use thereof and Landlord or Tenant may (i) cause a meter to be installed in or for the Leased Premises, or (ii) if Tenant elects not to install said meter, Landlord may reasonably estimate such excess electrical current. The cost of any meters (including, without limitation, the cost of any installation) or

surveys to estimate such excess electrical current shall be paid by Tenant. Landlord's approval of any space plan, floor plan, construction plans, specifications, or other drawings or materials regarding the construction of the Tenant Improvements or any alterations shall not be deemed or construed as consent by Landlord under this paragraph to Tenant's use of such excess electrical current as provided above. Tenant agrees to pay to Landlord, promptly upon demand therefor, all costs of such excess electrical current consumed as calculated by said meters (at the rates charged for such services to the Building by the municipality or the local public utility) or the excess amount specified in said estimate, as the case may be, plus any additional expense incurred in keeping account of the electrical current so consumed, which additional expense Landlord shall advise Tenant within a reasonable time after request by Tenant.

11.8 Water. During the Term of this Lease, if water is made available to the Leased Premises, then water shall be used for drinking, lavatory and office kitchen purposes only as applicable. If Tenant requires, uses or consumes water for any purpose in addition to ordinary drinking, lavatory, and office kitchen purposes (as determined by Landlord in its sole and absolute discretion), as applicable, Landlord may reasonably estimate such excess and Tenant shall pay for same.

11.9 Interruptions. It is understood that Landlord does not warrant that any of the services referred to above or any other services which Landlord may supply will be free from interruption. Tenant acknowledges that any one or more such services may be suspended or reduced by reason of repairs, alterations or improvements necessary to be made, by strikes or accidents, by any cause beyond the reasonable control of Landlord, or by orders or regulations of any federal, state, county or municipal authority. Any such interruption or suspension of services shall not be deemed an eviction (constructive or otherwise) or disturbance of Tenant's use and possession of the Leased Premises or any part thereof, nor render Landlord liable to Tenant for damages by abatement of Rent or otherwise, nor relieve Tenant of performance of Tenant's obligations under this Lease. Notwithstanding anything herein to the contrary, if the Premises is made untenantable, inaccessible or unsuitable for the ordinary conduct of Tenant's business, as a result of an interruption in any of the services required to be provided by Landlord pursuant to this Article 11, then (i) Landlord shall use commercially reasonable good faith efforts to restore the same as soon as is reasonably possible, (ii) if, despite such commercially reasonable good faith efforts by Landlord, such interruption persists for a period in excess of three (3) consecutive business days, then Tenant, as its sole remedy, shall be entitled to receive an abatement of Minimum Monthly Rent and additional Rent payable hereunder during the period beginning on the fourth (4th) consecutive business day of such interruption and ending on the day the utility or service has been restored; provided, however, that in the event such interruption is not due to Landlord's negligence or willful misconduct, then such abatement shall only apply to the extent Landlord collects proceeds (or would have collected had Landlord tendered such claim) under the policy of rental-loss insurance the cost of which has been included in Operating Expenses and the proceeds from which are allocable to the Premises.

11.10 Conservation. Tenant agrees to comply with the conservation, use and recycling policies and practices from time to time reasonably established by Landlord for the use of utilities and services supplied by Landlord. Landlord may reduce the utilities supplied to the Leased Premises and the Common Areas as required or permitted by any mandatory or voluntary water, energy or other conservation statute, regulation, order or allocation or other program, and the utility charges payable by Tenant hereunder may include excess usage penalties or surcharges as may, from time to time, be imposed on Landlord or the Premises as a result of Tenant's failure to comply with any such conservation statute, regulation, or order.

11.11 Excess Usage. In addition to Tenant's Proportionate Share of Operating Costs, Tenant shall pay for (the "**Excess Utility Costs**") (i) all utility costs (including, without limitation, electricity, water and/or natural gas) attributable to any HVAC or other cooling system located in the Leased Premises or elsewhere that provides service to Tenant's server room, data center or other areas with special equipment or for special use, and (ii) all utility costs consumed at the Leased Premises in excess of normal office use (such as by way of example only, extended hours of operation, heavier use of duplicating, computer, telecommunications or other equipment in excess of the normal use for general office uses, or a density of workers in excess of the normal density for general office uses). Tenant shall pay for such Excess Utility Costs within thirty (30) days after

receipt of a billing from Landlord. Such billing shall be determined in good faith by Landlord based on separate meters, submeters or other measuring devices (such as an eamon demon device) to measure consumption of such utilities at the Leased Premises or otherwise based on a commercially reasonable allocation given Tenant's use of the Leased Premises. The charge for such excess use may include a commercially reasonable charge for increased wear and tear on existing mechanical equipment caused by Tenant's excess consumption. Tenant shall pay, as additional rent, for the Excess Utility Costs within thirty (30) days after receipt of a billing from Landlord, and if requested by Landlord, Tenant shall pay for Excess Utility Costs, as additional rent, on an estimated basis in advance on the first day of each month, subject to an annual reconciliation of such Excess Utility Costs.

ARTICLE 12 ALTERATIONS

12.1 Consent of Landlord; Ownership. Tenant shall not make, or suffer to be made, any alterations, additions or improvements, including, without limitation, any alterations, additions or improvements that result in increased telecommunication demands or require the addition of new communication or computer wires, cables and related devises or expand the number of telephone or communication lines dedicated to the Leased Premises by the Building's telecommunication design (individually, an "**alteration**" and collectively, "**alterations**") to the Leased Premises, or any part thereof, without the written consent of Landlord first had and obtained, which consent shall not be unreasonably withheld, conditioned or delayed. Subject to Section 12.4 below, any alterations, except trade fixtures, shall upon expiration or termination of this Lease become a part of the realty and belong to Landlord. Except as otherwise provided in this Lease, Tenant shall have the right to remove its trade fixtures placed upon the Leased Premises provided that Tenant restores the Leased Premises as indicated below. Notwithstanding the foregoing, Landlord's consent shall not be required for any alteration to the interior of the Premises that complies with the following requirements: (1) is cosmetic in nature such as painting, (2) does not affect the roof or any area outside of the Premises or require work inside the walls or above the ceiling of the Premises; (3) does not affect the Structural parts of the Building or materially affect electrical, plumbing, HVAC or mechanical systems in the Building or servicing the Premises, or the sprinkler or other life safety system; and (4) costs less than $10,000.00 in the aggregate for all of such Alterations during a calendar year (herein referred to as "**Minor Alteration**"). Tenant shall provide Landlord with prior written notice of any Minor Alteration that requires a building permit.

12.2 Requirements. Any alteration performed by Tenant shall be subject to strict conformity with the following requirements:

(a) All alterations shall be at the sole cost and expense of Tenant;

(b) Prior to commencement of any work of alteration, Tenant shall submit detailed plans and specifications, including working drawings (hereinafter referred to as "**Plans**"), of the proposed alteration, which shall be subject to the consent of Landlord in accordance with the terms of Section 12.1 above;

(c) Following approval of the Plans by Landlord, Tenant shall give Landlord at least ten (10) days' prior written notice of any commencement of work in the Leased Premises so that Landlord may post notices of non-responsibility in or upon the Leased Premises as provided by law;

(d) No alteration shall be commenced without Tenant having previously obtained all appropriate permits and approvals required by and of governmental agencies;

(e) All alterations shall be performed in a skillful and workmanlike manner, consistent with the best practices and standards of the construction industry, and pursued with diligence in accordance with said Plans previously approved by Landlord and in full accord with all applicable laws and ordinances. All material, equipment, and articles incorporated in the alterations are to be new and of recent manufacture and of the most suitable grade for the purpose intended;

(f) Tenant must obtain the prior written approval (which approval shall not be unreasonably withheld, conditioned or delayed) from Landlord for Tenant's contractors before the commencement of any work. Tenant's contractor for any work shall maintain all of the insurance reasonably required by Landlord, including, without limitation, commercial general liability and workers' compensation.

(g) As a condition of approval of an alteration (but not the Tenant Improvements to be installed pursuant toExhibit C), the cost of which is reasonably expected to exceed $40,000.00, Landlord may require performance and labor and materialmen's payment bonds issued by a surety approved by Landlord, in a sum equal to the cost of the alterations guarantying the completion of the alteration free and clear of all liens and other charges in accordance with the Plans. Such bonds shall name Landlord as beneficiary;

(h) The alteration must be performed in a manner such that they will not interfere with the quiet enjoyment of the other tenants in the Complex.

12.3 Liens. Tenant shall keep the Leased Premises and the Complex in which the Leased Premises are situated free from any liens arising out of any work performed, materials furnished or obligations incurred by Tenant. In the event a mechanic's or other lien is filed against the Leased Premises, Building or the Complex as a result of a claim arising through Tenant, Landlord may demand that Tenant furnish to Landlord a surety bond satisfactory to Landlord in an amount equal to at least one hundred fifty percent (150%) of the amount of the contested lien claim or demand, indemnifying Landlord against liability for the same and holding the Leased Premises free from the effect of such lien or claim. Such bond must be posted within twenty (20) days following notice from Landlord. In addition, Landlord may require Tenant to pay Landlord's reasonable attorneys' fees and costs in participating in any action to foreclose such lien if Landlord shall decide it is to its best interest to do so. If Tenant fails to post such bond within said time period, Landlord, after five (5) business days prior written notice to Tenant, may pay the claim prior to the enforcement thereof, in which event Tenant shall reimburse Landlord in full, including attorneys' fees, for any such expense, as additional rent, with the next due rental.

12.4 Server Room Improvements. Tenant has notified Landlord that Tenant desires to construct and operate a server room within the Leased Premises which may include supplemental cooling equipment (collectively, the "**Server Improvements**"). Landlord has conceptually approved the Server Improvements and Tenant shall have the right to make the Server Improvements within the Leased Premises, at Tenant's sole cost and expense, provided that Tenant fully complies with the terms and conditions of this Article 12, including, without limitation, the review and approval by Landlord of detailed plans and specifications and the approval by Landlord of Tenant's contractor, and provided further that (i) Tenant pays any excess electrical charges attributable to same, (ii) the installation, construction and maintenance thereof is performed by Tenant at Tenant's sole cost and expense and in compliance with all applicable laws, (iii) the Building and Building systems have sufficient capacity and space to accommodate those facilities, (iv) the area occupied by servers and server rooms does not exceed five percent (5%) of the rentable area of the Leased Premises, and (v) the area occupied by servers and server rooms are served by adequate supplemental HVAC systems installed by Tenant in accordance with this Lease at Tenant's sole cost and expense, and Tenant pays the cost of all utilities serving those supplemental HVAC systems and servers.

12.5 Restoration. Tenant shall return the Leased Premises to Landlord at the expiration or earlier termination of this Lease in good and sanitary order, condition and repair, free of rubble and debris, broom clean, reasonable wear and tear excepted. However, Tenant shall ascertain from Landlord at least thirty (30) days prior to the termination of this Lease, whether Landlord desires the Leased Premises, or any part thereof, restored to its condition prior to the making of any alterations, installations and improvements (whether or not permitted hereunder), and if Landlord shall so desire, then Tenant shall forthwith restore said Leased Premises or the designated portions thereof as the case may be, to its original condition, entirely at its own expense, excepting normal wear and tear; provided, however, Tenant shall not be obligated to remove any alterations, installations or improvements if, at the time Tenant requested Landlord's approval (or notified Landlord of the same), Tenant requested of Landlord in writing that Landlord inform Tenant of whether or not Landlord would

require Tenant to remove the same, and at the time Landlord granted its approval, it did not inform Tenant that Landlord would require Tenant to remove such alteration, installation or improvement at the expiration of this Lease. All damage to the Leased Premises caused by the removal of such trade fixtures and other personal property that Tenant is permitted to remove under the terms of this Lease and/or such restoration shall be repaired by Tenant at its sole cost and expense prior to termination.

ARTICLE 13 PROPERTY INSURANCE

13.1 Use of Leased Premises. No use shall be made or permitted to be made on the Leased Premises, nor acts done, which will increase the existing rate of insurance upon the building in which the Leased Premises are located or upon any other Building in the Complex or cause the cancellation of any insurance policy covering the Building, or any part thereof, nor shall Tenant sell, or permit to be kept, used or sold, in or about the Leased Premises, any article which may be prohibited by the standard form of "All Risk" fire insurance policies. Tenant shall, at its sole cost and expense, comply with any and all requirements pertaining to the Leased Premises, of any insurance organization or company, necessary for the maintenance of reasonable property damage and commercial general liability insurance, covering the Leased Premises, the Building, or the Complex.

13.2 Increase in Premiums. Tenant agrees to pay Landlord, as additional Rent, within ten (10) days after receipt by Tenant of Landlord's billing therefor, any increase in premiums for insurance policies which may be carried by Landlord on the Leased Premises, Building or Complex to the extent resulting from the negligence or willful misconduct of Tenant or any of its contractors, partners, officers, employees or agents.

13.3 Personal Property Insurance. Tenant shall maintain in full force and effect on alterations, additions, improvements, carpeting, floor coverings, panelings, decorations, fixtures, inventory and other business personal property situated in or about the Leased Premises a policy or policies providing protection against any peril included within the classification "All Risk" to the extent of one hundred percent (100%) of their replacement cost, or that percentage of the replacement cost required to negate the effect of a co-insurance provision, whichever is greater. No such policy shall have a deductible in a greater amount than FIFTEEN THOUSAND DOLLARS ($15,000.00). Tenant shall also insure in the same manner the physical value of all its leasehold improvements and alterations in the Leased Premises. During the term of this Lease, the proceeds from any such policy or policies of insurance shall be used for the repair or replacement of the fixtures, equipment, and leasehold improvements so insured. Landlord shall have no interest in said insurance (except as a joint loss payee, as its interests may appear, with respect to any alterations or other leasehold improvements made to the Premises), and will sign all documents necessary or proper in connection with the settlement of any claim or loss by Tenant. Tenant shall also maintain business interruption insurance and insurance for all plate glass upon the Leased Premises. All insurance specified in this Section 13.3 to be maintained by Tenant shall be maintained by Tenant at its sole cost.

ARTICLE 14 INDEMNIFICATION, WAIVER OF CLAIMS AND SUBROGATION

14.1 Intent and Purpose. This Article 14 is written and agreed to in respect of the intent of the parties to assign the risk of loss, whether resulting from negligence of the parties or otherwise, to the party who is obligated hereunder to cover the risk of such loss with insurance. Thus, the indemnity and waiver of claims provisions of this Lease have as their object, so long as such object is not in violation of public policy, the assignment of risk for a particular casualty to the party carrying the insurance for such risk, without respect to the causation thereof.

14.2 Waiver of Subrogation. So long as their respective insurers so permit, Tenant and Landlord hereby mutually waive their respective rights of recovery against each other for any loss insured by fire, extended coverage, All Risks or other insurance now or hereafter existing for the benefit of the respective party but only to the extent of the net insurance proceeds payable under such policies. Each party shall obtain any special endorsements required by their insurer to evidence compliance with the aforementioned waiver.

14.3 Form of Policy. Tenant's policies of insurance required hereunder shall (a) be provided at Tenant's expense; (b) name the Landlord Entities as additional insureds (General Liability); (c) be issued by an insurance company with a minimum Best's rating of "A:VII" during the Term; and (d) provide that said insurance shall not be canceled unless thirty (30) days prior written notice (ten days for non-payment of premium) shall have been given to Landlord; a certificate of Liability insurance on ACORD Form 25 and a certificate of Property insurance on ACORD Form 27 shall be delivered to Landlord by Tenant upon the Commencement Date and at least thirty (30) days prior to each renewal of said insurance.

14.4 Indemnity.

(a) Tenant shall protect, indemnify and hold Landlord, Landlord's investment manager, and the trustees, boards of directors, officers, general partners, beneficiaries, stockholders, employees and agents of each of them (the "**Landlord Entities**") harmless from and against any and all loss, claims, liability or costs (including court costs and attorney's fees) incurred by reason of (a) any damage to any property (including but not limited to property of any Landlord Entity) or any injury (including but not limited to death) to any person occurring in, on or about the Leased Premises, Building and or Complex to the extent that such injury or damage shall be caused by or arise from any actual or alleged act, neglect, fault, or omission by or of Tenant or any of Tenant's agents, contractors, employees, licensees or business invitees (collectively, the "**Tenant Entities**"); (b) the conduct or management of any work or thing whatsoever done by the Tenant in or about the Leased Premises or from transactions of the Tenant concerning the Leased Premises; (c) Tenant's failure to comply with any and all governmental laws, ordinances and regulations applicable to the use of the Leased Premises or its occupancy; or (d) any breach or default on the part of Tenant in the performance of any covenant or agreement on the part of the Tenant to be performed pursuant to this Lease; provided, however, the foregoing indemnity shall not be applicable to the extent any claims arise out of or are attributable to the negligence or willful misconduct of Landlord or Landlord Entities. The provisions of this Article shall survive the termination of this Lease with respect to any claims or liability accruing prior to such termination.

(b) Landlord shall protect, indemnify and hold Tenant harmless from and against any and all loss, claims, liability or costs (including court costs and attorney's fees) incurred by reason of the gross negligence or willful misconduct of Landlord; provided, however, the foregoing indemnity shall not be applicable to the extent any claims arise out of or are attributable to the negligence or willful misconduct of Tenant or Tenant Entities.

(c) The provisions of this Article shall survive the termination of this Lease with respect to any claims or liability accruing prior to such termination.

14.5 Defense of Claims. In the event any action, suit or proceeding is brought against Landlord by reason of any such occurrence, Tenant, upon Landlord's request, will at Tenant's expense resist and defend such action, suit or proceeding, or cause the same to be resisted and defended by counsel designated either by Tenant or by the insurer whose policy covers the occurrence and in either case approved by Landlord. The obligations of Tenant under this Section arising by reason of any occurrence taking place during the Lease term shall survive any termination of this Lease.

14.6 Waiver of Claims. Tenant, as a material part of the consideration to be rendered to Landlord, hereby waives all claims against Landlord for damages to goods, wares, merchandise and loss of business in, upon or about the Leased Premises and injury to Tenant, its agents, employees, invitees or third persons, in, upon or about the Leased Premises, Building or Complex from any cause arising at any time, including the failure to provide security or Landlord's negligence in connection therewith, or the negligence of the parties hereto, except to the extent such damages or injury are caused by the gross negligence or willful actions of Landlord, its agents, officers and employees; provided, however, the foregoing does not waive any direct claims by Tenant's agents, employees, invitees or other third persons.

14.7 References. Wherever in this Article the term Landlord or Tenant is used and such party is to receive the benefit of a provision contained in this Article, such term shall refer not only to that party but also to its shareholders, officers, directors, employees, partners, members, managers, mortgagees and agents.

ARTICLE 15 LIABILITY AND OTHER INSURANCE

15.1 Tenant's Insurance. Tenant shall, at Tenant's expense, obtain and keep in force during the term of this Lease, a commercial general liability insurance policy, written on an occurrence basis, insuring Tenant and protecting Landlord and the Landlord Entities against any liability to the public or to any invitee of Tenant or a Landlord Entity against the risks of, bodily injury and property damage, personal injury, contractual liability, completed operations, products liability, host liquor liability, owned and non-owned automobile liability arising out of the use, occupancy or maintenance of the Leased Premises and all areas appurtenant thereto. Such insurance shall be a combined single limit policy in an amount not less than ONE MILLION DOLLARS ($1,000,000.00) per occurrence with a TWO MILLION DOLLARS ($2,000,000.00) annual aggregate. Landlord, the Landlord Entities and any lender and any other party in interest designated by Landlord shall be named as additional insured(s). The policy shall contain cross liability endorsements with coverage for Landlord for the negligence of Tenant even though Landlord is named as an additional insured; shall insure performance by Tenant of the indemnity provisions of this Lease (subject to standard policy exceptions and exclusions); shall be primary, not contributing with, and not in excess of coverage which Landlord may carry; shall provide for severability of interest; shall provide that an act or omission of one of the insured or additional insureds which would void or otherwise reduce coverage shall not void or reduce coverages as to the other insured or additional insureds. The limits of said insurance shall not limit any liability of Tenant hereunder. Not more frequently than every year, if, in the reasonable opinion of Landlord, the amount of liability insurance required hereunder is not adequate, Tenant shall promptly increase said insurance coverage as reasonably required by Landlord.

15.2 Workers' Compensation Insurance. Tenant shall carry Workers' Compensation insurance as required by law, including an employers' liability endorsement.

15.3 Other Insurance. Tenant shall keep in force throughout the Term: (a) Business Auto Liability covering owned, non-owned and hired vehicles with a limit of not less than $1,000,000 per accident; (b) Employers Liability with limits of $1,000,000 each accident, $1,000,000 disease policy limit, $1,000,000 disease—each employee; (c) Business Interruption Insurance for 100% of the 12 months actual loss sustained, and (d) Excess Liability in the amount of $5,000,000. In addition, whenever Tenant shall undertake any alterations, additions or improvements in, to or about the Leased Premises ("**Work**") the aforesaid insurance protection must extend to and include injuries to persons and damage to property arising in connection with such Work, without limitation including liability under any applicable structural work act, and such other insurance as Landlord shall require; and the policies of or certificates evidencing such insurance must be delivered to Landlord prior to the commencement of any such Work.

ARTICLE 16 INSURANCE POLICY REQUIREMENTS & INSURANCE DEFAULTS

16.1 General Requirements. All insurance policies required to be carried by Tenant (except Tenant's business personal property insurance) hereunder shall conform to the following requirements:

(a) The insurer in each case shall carry a designation in "Best's Insurance Reports" as issued from time to time throughout the term as follows: Policyholders' rating of A; financial rating of not less than VII;

(b) The insurer shall be qualified or authorized to do business in the state in which the Leased Premises are located;

(c) The policy shall be in a form and include such endorsements as are reasonably acceptable to Landlord;

(d) Certificates of insurance shall be delivered to Landlord at commencement of the term and certificates of renewal at least thirty (30) days prior to the expiration of each policy; and

(e) Each policy shall require that Landlord be notified in writing by the insurer at least thirty (30) days prior to any cancellation or expiration of such policy, or any reduction in the amounts of insurance carried.

16.2 Tenant's Insurance Defaults. If Tenant fails to obtain any insurance required of it under the terms of this Lease, and such failure continues for three (3) business days following notice from Landlord, Landlord may, at its option, but is not obligated to, obtain such insurance on behalf of Tenant and bill Tenant, as additional rent, for the cost thereof. Payment shall be due within thirty (30) days of receipt of the billing therefor by Tenant.

ARTICLE 17 INTENTIONALLY OMITTED

ARTICLE 18 MAINTENANCE AND REPAIRS

18.1 Landlord's Obligations. Subject to the other provisions of this Lease imposing obligations in this respect upon Tenant, Landlord shall repair, replace and maintain the external and Structural parts of the Building and Common Areas of the Complex, janitor and equipment closets and shafts within the Leased Premises designated by Landlord for use by it in connection with the operation and maintenance of the Complex, the heating, air conditioning and ventilation system, the plumbing and electrical systems, the lights, and all Common Areas. Landlord shall perform such repairs, replacements and maintenance with reasonable dispatch, in a good and workmanlike manner; but Landlord shall not be liable for any damages, direct, indirect or consequential, or for damages for personal discomfort, illness or inconvenience of Tenant by reason of failure of such equipment, facilities or systems or reasonable delays in the performance of such repairs, replacements and maintenance, unless caused by the gross negligence or deliberate act or omission of Landlord. The cost for such repairs, maintenance and replacement shall be included, to the extent permitted under the Lease, in Operating Costs.

18.2 Negligence of Tenant. Subject to Section 14.2, if the Building, the elevators, boilers, engines, pipes or apparatus used for the purpose of climate control of the Building or operating the elevators, or if the water pipes, drainage pipes, electric lighting or other equipment of the Building, or the roof or the outside walls of the Building, fall into a state of disrepair or become damaged or destroyed through the negligence or intentional act of Tenant, its agents, officers, partners, employees or servants, the cost of the necessary repairs, replacements or alterations shall be borne by Tenant who shall pay the same to Landlord as additional charges forthwith on demand.

18.3 Tenant's Obligations. Tenant shall repair the Leased Premises, including without limiting the generality of the foregoing, all interior partitions and walls, fixtures, Tenant Improvements and alterations in the Leased Premises, fixtures and shelving, and special mechanical and electrical equipment which equipment is not a normal part of the Leased Premises installed by or for Tenant, reasonable wear and tear, damage with respect to which Landlord has an obligation to repair as provided in Section 18.1 and Section 19 hereof only excepted. Landlord may enter and view the state of repair and Tenant will repair in a good and workmanlike manner according to notice in writing.

18.4 Cleaning. Tenant agrees at the end of each business day to leave the Leased Premises in a reasonably clean condition for the purpose of the performance of Landlord's cleaning services referred to herein.

18.5 Waiver. Tenant waives all rights it may have under law to make repairs at Landlord's expense.

18.6 Acceptance. Except as to the construction obligations of Landlord, if any, stated in Exhibit C to this Lease and as otherwise provided herein, Tenant shall accept the Leased Premises in "as is" condition as of the date of execution of this Lease by Tenant, and subject to the punch list items referenced in section 4.5, Tenant acknowledges that the Leased Premises in such condition are in good and sanitary order, condition and repair.

ARTICLE 19 DESTRUCTION

19.1 Rights of Termination. In the event the Leased Premises suffers (a) an "uninsured property loss" (as hereinafter defined) or (b) a property loss which cannot be repaired within one hundred eighty (180) days from the date of destruction under the laws and regulations of state, federal, county or municipal authorities, or other authorities with jurisdiction, Landlord may terminate this Lease as of the date of the damage within twenty (20) days of written notice from Landlord to Tenant that the damage from the casualty was an uninsured property loss or that time to restore will exceed such one hundred eighty (180) day period. In the event of a property loss to the Leased Premises which cannot be repaired within one hundred eighty (180) days of the occurrence thereof, Tenant shall also have the right to terminate the Lease by written notice to Landlord within twenty (20) days following notice from Landlord that the time for restoration will exceed such time period. Notwithstanding anything to the contrary contained in this Lease, Tenant shall not have the right to terminate this Lease if the casualty or other loss or damage was caused by the negligence or intentional misconduct of Tenant or any Tenant Entity or a party related to Tenant. For purposes of this Lease, the term "**uninsured property loss**" shall mean any loss arising from a peril not covered by the standard form of "All Risk" property insurance policy and which costs in excess of $150,000.00 to repair.

19.2 Repairs. In the event of a property loss which may be repaired within one hundred eighty (180) days from the date of the damage, or, in the alternative, in the event the parties do not elect to terminate this Lease under the terms of Section 19.1 above, then this Lease shall continue in full force and effect and Landlord shall forthwith undertake to make such repairs to reconstitute the Leased Premises to as near the condition as existed prior to the property loss as practicable. Landlord shall not be required to repair or replace any damage or loss by or from fire or other cause to any panelings, decorations, partitions, additions, railings, ceilings, floor coverings, office fixtures or any other property or improvements installed on the Leased Premises by, or belonging to, Tenant. Such partial destruction shall in no way annul or void this Lease except that Tenant shall be entitled to a proportionate reduction of Minimum Monthly Rent and Additional Rent following the property loss and until the time the Leased Premises are restored. Such reduction shall be based on the degree of impairment of Tenant's ability to conduct business at the Leased Premises in the same manner as it conducted its business before the casualty. So long as Tenant conducts its business in the Leased Premises, there shall be no abatement until the parties agree on the amount thereof. If the parties cannot agree within forty-five (45) days of the property loss, the matter shall be submitted to arbitration under the rules of the American Arbitration Association. Upon the resolution of the dispute, the settlement shall be retroactive and Landlord shall within ten (10) days thereafter refund to Tenant any sums due in respect of the reduced rental from the date of the property loss. Landlord's obligations to restore shall in no way include any construction originally performed by Tenant or subsequently undertaken by Tenant, but shall include solely that property constructed by Landlord prior to commencement of the Term hereof. Notwithstanding anything to the contrary contained in this Lease, in the event the holder of any indebtedness secured by a mortgage or deed of trust covering the Leased Premises, Building and/or Complex requires that any insurance proceeds be applied to such indebtedness, then Landlord shall have the right to terminate this Lease by delivering written notice of termination to Tenant within fifteen (15) days after such requirement is made by any such holder, whereupon this Lease shall end on the date of such damage as if the date of such damage were the date originally fixed in this Lease for the expiration of the Term.

19.3 Repair Costs. The cost of any repairs to be made by Landlord, pursuant to Section 19.2 of this Lease, shall be paid by Landlord utilizing available insurance proceeds. Any deductible for which no insurance proceeds will be obtained under Landlord's insurance policy shall be included within Operating Costs; provided, however, in no event shall Tenant's Proportionate Share of any individual casualty deductible exceed an amount equivalent to two (2) months of Minimum Monthly Rent.

19.4 Waiver. Tenant hereby waives all statutory or common law rights of termination in respect to any partial destruction or property loss which Landlord is obligated to repair or may elect to repair under the terms of this Article.

19.5 Landlord's Election. In the event that the Complex or Building is destroyed to the extent of not less than twenty-five percent (25%) of the replacement cost thereof, Landlord may elect to terminate this Lease, whether the Leased Premises be injured or not, in the same manner as in Section 19.1 above. In all events, a total destruction of the Complex or Building shall terminate this Lease.

19.6 Damage Near End of Term. If at any time during the last twelve (12) months of the term of this Lease there is, in Landlord's sole opinion, substantial damage to the Premises or the Building, whether or not such casualty is covered in whole or in part by insurance, Landlord, and, if such damage materially interferes with Tenant's ability to conduct business within the Premise then also Tenant, may cancel and terminate this Lease as of the date of occurrence of such damage by giving written notice to the other within thirty (30) days after the date of occurrence of such damage and Landlord shall have no further liability hereunder. Substantial damage shall be defined as damage that will cost over $50,000.00 to repair.

ARTICLE 20 CONDEMNATION

20.1 Definitions.

(a) "**Condemnation**" means (i) the exercise of any governmental power, whether by legal proceedings or otherwise, by a condemnor and/or (ii) a voluntary sale or transfer by Landlord to any condemnor, either under threat of condemnation or while legal proceedings for condemnation are pending.

(b) "**Date of taking**" means the date the condemnor has the right to possession of the property being condemned.

(c) "**Award**" means all compensation, sums or anything of value awarded, paid or received on a total or partial condemnation.

(d) "**Condemnor**" means any public or quasi-public authority, or private corporation or individual, having the power of condemnation.

20.2 Total Taking. If the Leased Premises are totally taken by condemnation, this Lease shall terminate on the date of taking.

20.3 Partial Taking; Common Areas.

(a) If any portion of the Leased Premises is taken by condemnation, this Lease shall remain in effect, except that Tenant can elect to terminate this Lease if 33-1/3% or more of the total number of square feet in the Leased Premises is taken.

(b) If any part of the Common Areas of the Complex is taken by condemnation, this Lease shall remain in full force and effect so long as there is no material interference with the access to the Leased Premises, except that if thirty percent (30%) or more of the Common Areas is taken by condemnation, Landlord or Tenant shall have the election to terminate this Lease pursuant to this Section.

(c) If fifty percent (50%) or more of the Building in which the Leased Premises are located is taken, Landlord shall have the election to terminate this Lease in the manner prescribed herein.

20.4 Termination or Abatement. If either party elects to terminate this Lease under the provisions of Section 20.3 (such party is hereinafter referred to as the "**Terminating Party**"), it must terminate by giving notice to the other party (the "**Nonterminating Party**") within thirty (30) days after the nature and extent of the taking have been finally determined (the "**Decision Period**"). The Terminating Party shall notify the Nonterminating Party of the date of termination, which date shall not be earlier than one hundred twenty (120) days after the Terminating Party has notified the Nonterminating Party of its election to terminate nor later than the date of taking. If Notice of Termination is not given within the Decision Period, the Lease shall continue in full force and effect except that Minimum Monthly Rent shall be reduced by subtracting therefrom an amount calculated by multiplying the Minimum Monthly Rent in effect prior to the taking by a fraction the numerator of which is the number of square feet taken from the Leased Premises and the denominator of which is the number of square feet in the Leased Premises prior to the taking.

20.5 Restoration. If there is a partial taking of the Leased Premises and this Lease remains in full force and effect pursuant to this Article, Landlord, at its cost, shall accomplish all necessary restoration so that the Leased Premises is returned as near as practical to its condition immediately prior to the date of the taking, but in no event shall Landlord be obligated to expend more for such restoration than the extent of funds actually paid to Landlord by the condemnor.

20.6 Award. Any award arising from the condemnation or the settlement thereof shall belong to and be paid to Landlord except that Tenant shall receive from the award compensation for the following if specified in the award by the condemning authority, so long as it does not reduce Landlord's award in respect of the real property: Tenant's trade fixtures, tangible personal property, goodwill, loss of business and relocation expenses. At all events, Landlord shall be solely entitled to all award in respect of the real property, including the bonus value of the leasehold. Tenant shall not be entitled to any award until Landlord has received the above sum in full.

ARTICLE 21 ASSIGNMENT AND SUBLETTING

21.1 Lease is Personal. The purpose of this Lease is to transfer possession of the Leased Premises to Tenant for Tenant's personal use in return for certain benefits, including rent, to be transferred to the Landlord. Tenant acknowledges and agrees that it has entered into this Lease in order to occupy the Leased Premises for its own personal use and not for the purpose of obtaining the right to assign or sublet the leasehold to others.

21.2 "Transfer of the Leased Premises" Defined. Except for a Permitted Transfer described in section 21.5 hereof, the terms "**Transfer of the Leased Premises**" or "**Transfer**" as used herein shall include any of the following, whether voluntary or involuntary and whether effected by death, operation of law or otherwise:

(a) An assignment of all or any part this Lease or subletting of all or any part the Leased Premises or transfer of possession, or right of possession or contingent right of possession of all or any portion of the Leased Premises including, without limitation, concession, mortgage, deed of trust, devise, hypothecation, agency, license, franchise or management agreement, or the occupancy or use by any other person (the agents and servants of Tenant excepted) of any portion of the Leased Premises.

(b) If Tenant is a partnership, limited liability company or other entity other than a corporation described in Section 21.1(c) below:

(1) A change in ownership effected voluntarily, involuntarily, or by operation of law of fifty percent (50%) or more of the partners or members or fifty percent (50%) or more in the aggregate of the partnership or membership interests, whether in a single transaction or series of transactions over a period of time; or

(2) The sale, mortgage, hypothecation, pledge or other encumbrance at any time of more than an aggregate of fifty percent (50%) in the aggregate of the value of Tenant's assets, whether in a single transaction or series of transactions over a period of time; or

(3) The dissolution of the partnership or limited liability company without its immediate reconstitution.

(c) If Tenant is a closely held corporation (i.e., one whose stock is not publicly held and not traded through an exchange or over the counter):

(1) The sale or other transfer of more than an aggregate of fifty percent (50%) of the voting shares of Tenant or more in the aggregate, whether in a single transaction or series of transactions over a period of time;

(2) The sale, mortgage, hypothecation, pledge or other encumbrance at any time of more than an aggregate of fifty percent (50%) in the aggregate of the value of Tenant's assets, whether in a single transaction or series of transactions over a period of time; or

(3) The dissolution, merger, consolidation, or other reorganization of Tenant.

21.3 No Transfer Without Consent. Except for a Permitted Transfer described in Section 21.5 hereof, Tenant shall not suffer a Transfer of the Leased Premises or any interest therein, or any part thereof, or any right or privilege appurtenant thereto without the prior written consent of Landlord, and a consent to one Transfer of the Leased Premises shall not be deemed to be a consent to any subsequent Transfer of the Leased Premises. Any Transfer of the Leased Premises without such consent in violation hereof shall (i) be voidable, and (ii) terminate this Lease, in either case, at the option of Landlord. The consent by Landlord to any Transfer shall not include consent to the assignment or transferring of any lease renewal option rights or space option rights of the Leased Premises, special privileges or extra services granted to Tenant by this Lease, or addendum or amendment thereto or letter of agreement (and such options, rights, privileges or services shall terminate upon such assignment), unless Landlord specifically grants in writing such options, rights, privileges or services to such assignee or subtenant.

21.4 When Consent Granted. The consent of Landlord to a Transfer may not be unreasonably withheld, conditioned or delayed, provided that it is agreed to be reasonable for Landlord to consider any of the following reasons, which list is not exclusive, in electing to deny consent:

(a) The financial strength of the proposed transferee at the time of the proposed Transfer is not at least equal to that of Tenant at the time of execution of this Lease;

(b) A proposed transferee whose occupation of the Leased Premises would cause a diminution in the reputation of the Complex or the other businesses located therein;

(c) A proposed transferee whose impact or affect on the common facilities or the utility, efficiency or effectiveness of any utility or telecommunication system serving the Building or the Complex or the other occupants of the Complex would be materially adverse, disadvantageous or require improvements or changes in any utility or telecommunication capacity currently serving the Building or the Complex;

(d) A proposed transferee whose occupancy will require a variation in the terms of this Lease (including, without limitation, a variation in the use clause) or which otherwise adversely affects any interest of Landlord;

(e) The existence of any default by Tenant under any provision of this Lease;

(f) Either the proposed transferee, or any person or entity which directly or indirectly, controls, is controlled by, or is under common control with, the proposed transferee or an affiliate of the proposed transferee, is negotiating with Landlord to lease space in the Building or in the Complex at such time;

(g) the proposed Transferee is a governmental agency or unit, a non-profit or charitable entity or organization;

(h) Landlord otherwise determines that the proposed Transfer would have the effect of decreasing the value of the Building or the Complex, or materially increasing the expenses associated with operating, maintaining and repairing the Building or the Complex;

(i) the proposed Transferee will use, store or handle Hazardous Materials (defined below) in or about the Leased Premises of a type, nature or quantity not then reasonably acceptable to Landlord; or

(m) the portion of the Leased Premises to be sublet or assigned is irregular in shape with inadequate means of ingress and egress.

21.5 Permitted Transfer. Notwithstanding the foregoing, Landlord's consent is not required for any Permitted Transfer (as hereinafter defined), provided the following conditions are met.

(a) At least ten (10) business days before the Transfer, Landlord receives written notice of the Transfer (as well as any documents or information reasonably necessary to show the consummation of the Permitted Transfer);

(b) The Permitted Transfer is not a subterfuge by Tenant to avoid its obligations under this Lease;

(c) If the Permitted Transfer is an assignment or sale of Tenant's assets or merger of Tenant into a successor entity, the Transferee assumes in writing all of Tenant's obligations under this Lease relating to the Leased Premises; and

(d) The Transferee has a tangible net worth, as evidenced by financial statements delivered to Landlord and certified by an independent certified public accountant or such Transferee's chief financial officer in accordance with generally accepted accounting principles that are consistently applied ("**Net Worth**"), at least equal to Tenant's Net Worth either immediately before the Transfer or as of the date of this Lease, whichever is less.

For purposes hereof, the term **"Permitted Transfer"** shall mean any Transfer to an entity that (i) is an Affiliate of Tenant, (ii) purchases substantially all of Tenant's assets, or (iii) is the surviving entity in the event of any merger or consolidation of Tenant with such surviving entity. For purposes hereef "**Affiliate**" means any entity that controls, is controlled by, or is under common control with Tenant. "**Control**" means the direct or indirect ownership of more than fifty percent (50%) of the voting securities of an entity or possession of the right to vote more than fifty percent (50%) of the voting interest in the ordinary direction of the entity's affairs.

21.6 Procedure for Obtaining Consent. In the event Tenant desires to sublet, or permit such occupancy of, the Leased Premises, or any portion thereof, or assign this Lease, Tenant shall give written notice thereof to Landlord at least sixty (60) days but no more than one hundred twenty (120) days prior to the proposed commencement date of such subletting or assignment requiring consent, which notice shall set forth the name of the proposed subtenant or assignee, the relevant terms of any sublease or assignment and copies of financial reports and other relevant financial information of the proposed subtenant or assignee. With respect to a Transfer requiring Landlord's consent, Landlord need not commence its review of any proposed Transfer, or respond to any request by Tenant with respect to such, unless and until it has received from Tenant adequate

descriptive information concerning the business to be conducted by the proposed transferee, the transferee's financial capacity, and such other information as may reasonably be required in order to form a prudent judgment as to the acceptability of the proposed Transfer, including, without limitation, the following:

(a) The past two years' Federal Income Tax returns of the proposed transferee (or in the alternative the past two years' audited annual Balance Sheets and Profit and Loss statements, certified correct by a Certified Public Accountant);

(b) A resume of the business background and experience of the proposed transferee; and

(c) An executed copy of the instrument by which Tenant proposes to effectuate the Transfer.

21.7 Recapture. By written notice to Tenant (the "**Termination Notice**") within thirty (30) days following submission to Landlord by Tenant of the information specified in section 21.6, Landlord may (1) terminate this Lease in the event of an assignment of this Lease or sublet of the entire Leased Premises, or (2) terminate this Lease as to the portion of the Leased Premises to be sublet, if the sublet is to be of less than the entire Leased Premises. If Landlord elects to terminate under the provisions hereof, and the area to be terminated is less than the entire Leased Premises, an amendment to this Lease shall be executed in which Tenant's obligations for rent and other charges shall be reduced in proportion to the reduction in the size of the Leased Premises caused thereby by restating the description of the Leased Premises, and its monetary obligations hereunder shall be reduced by multiplying such obligations by a fraction, the numerator of which is the Rentable Area of the Leased Premises offered for sublease and the denominator of which is the Rentable Area of the Leased Premises immediately prior to such termination, as determined by Landlord in its sole and absolute discretion. In the event Landlord exercises its termination right pursuant to this Section 21.7, Tenant shall have fifteen (15) days following Landlord's election to terminate to withdraw its Termination Notice and request to the transfer, and in which case, the Lease shall remain in full force and effect.

21.8 Reasonable Restriction. The restrictions on Transfer described in this Lease are acknowledged by Tenant to be reasonable for all purposes, including, without limitation, the provisions of California Civil Code (the "**Code**") Section 1951.4(b)(2). Tenant expressly waives any rights which it might otherwise be deemed to possess pursuant to applicable law, including, without limitation, Section 1997.040 of the Code, to limit any remedy of Landlord pursuant to Section 1951.2 or 1951.4 of the Code by means of proof that enforcement of a restriction on use of the Leased Premises would be unreasonable.

21.9 Effect of Transfer. If Landlord consents to a Transfer and does not elect to recapture as provided in section 21.7, the following conditions shall apply:

(a) Each and every covenant, condition or obligation imposed upon Tenant by this Lease and each and every right, remedy or benefit afforded Landlord by this Lease shall not be impaired or diminished as a result of such Transfer.

(b) Tenant shall pay to Landlord on a monthly basis, fifty percent (50%) of all rent, additional rent or other consideration payable by such transferee in connection with the Transfer in excess of the Rent payable by Tenant under this Lease during the term of the Transfer, on a per rentable square foot basis if less than all of the Leased Premises is transferred, after deducting all reasonable expenses actually incurred by Tenant in connection therewith for (i) improvements to the Leased Premises made and paid for by Tenant in connection with the Transfer, (ii) reasonable brokerage commissions in connection with the Transfer paid by Tenant to unaffiliated third party licensed real estate brokers, and (iii) reasonable legal fees incurred in connection with the Transfer. The amount so derived shall be paid with Tenant's payment of Minimum Monthly Rent. The amount so derived shall be paid with Tenant's payment of Minimum Monthly Rent.

(c) No Transfer, whether or not consent of Landlord is required hereunder, shall relieve Tenant of its primary obligation to pay the rent and to perform all other obligations to be performed by Tenant hereunder. The acceptance of rent by Landlord from any person shall not be deemed to be a waiver by Landlord of any provision of this Lease or to be a consent to any Transfer of the Leased Premises.

(d) If Landlord consents to a sublease, such sublease shall not extend beyond the expiration of the Term of this Lease.

(e) No Transfer shall be valid and no transferee shall take possession of the Leased Premises or any part thereof unless, Tenant shall deliver to Landlord, at least ten (10) days prior to the effective date of such Transfer, a duly executed duplicate original of the Transfer instrument in form satisfactory to Landlord which provides that (i) the transferee assumes Tenant's obligations for the payment of rent and for the full and faithful observance and performance of the covenants, terms and conditions contained herein, (ii) such transferee will, at Landlord's election, attorn directly to Landlord in the event Tenant's Lease is terminated for any reason on the terms set forth in the instrument of transfer and (iii) such instrument of transfer contains such other assurances as Landlord reasonably deems necessary.

21.10 Costs. Tenant shall reimburse Landlord as additional rent for Landlord's reasonable costs and attorneys' fees incurred in conjunction with the processing and documentation of any proposed Transfer of the Leased Premises, whether or not consent is granted, not to exceed $1,500.00 unless Tenant or its Transferee requests material changes to this Lease or significant changes to Landlord's form of consent, in which case such monetary limitation shall not apply. The reference to changes in this Lease or Landlord's form of consent shall not be deemed or constructed as an agreement, commitment or assurance by Landlord that any changes will be made.

ARTICLE 22 ENTRY BY LESSOR

22.1 Rights of Landlord. Tenant shall permit Landlord and Landlord's agents and any mortgagee under a mortgage or beneficiary under a deed of trust encumbering the Building containing the Leased Premises and such party's agents to enter the Leased Premises upon not less than twenty-four (24) hours' prior written notice (except in case of emergency in which case Landlord shall endeavor to give such notice as the circumstances may permit, which may be telephonic notice) for the purpose of (a) inspecting the same, (b) maintaining the Building, (c) making repairs, replacements, alterations or additions to any portion of the Building, including the erection and maintenance of such scaffolding, canopies, fences and props as may be required, (d) posting notices of non-responsibility for alterations, additions or repairs, (e) placing upon the Building any usual or ordinary "for sale" signs and showing the space to prospective purchasers, investors and lenders, without any rebate of rent and without any liability to Tenant for any loss of occupation or quiet enjoyment of the Leased Premises thereby occasioned, and (f) during the last twelve (12) months of the Term, placing on the Leased Premises any "to let" or "to lease" signs and marketing and showing the Leased Premises to prospective tenants. This Section in no way affects the maintenance obligations of the parties hereto.

ARTICLE 23 SIGNS

23.1 Approval, Installation and Maintenance. Tenant shall not place on the Leased Premises or on the Building or Common Areas of the Complex, any exterior signs or advertisements nor any interior signs or advertisements that are visible from the exterior of the Leased Premises, without Landlord's prior written consent, which Landlord reserves the right to withhold for any aesthetic or other reason in its sole and absolute discretion. The cost of installation and regular maintenance of any such signs approved by Landlord shall be at the sole expense of Tenant. At the termination of this Lease, or any extension thereof, Tenant shall remove all its signs, and all damage caused by such removal shall be repaired at Tenant's expense.

23.2 Lobby and Suite Signage. Landlord will include Tenant's name in the directory of the lobby in the Building containing the Leased Premises, and Landlord will pay for the initial cost to include Tenant's name in such directory to the extent a directory exists. Any changes to Tenant's name or its listing in such directory shall be at Tenant's expense. At Tenant's expense, Landlord will also install a sign identifying Tenant's name next to the main entrance door to the Lease Premises, which sign will be consistent with the Landlord's standard Building signage for such purposes. Any change to such sign shall be at Tenant's sole cost and expense.

ARTICLE 24 DEFAULT

24.1 Definition. The occurrence of any of the following shall constitute a material default and breach of this Lease by Tenant:

(a) Payment. Any failure by Tenant to pay the rent or to make any other payment required to be made by Tenant hereunder when due; provided, however, that not more frequently than twice each calendar year, Tenant shall not be in default for failure to pay Rent or any other sum unless Tenant fails to make such payment within five (5) business days after receipt of written notice of such failure from Landlord. The foregoing notice and cure period shall not be deemed a waiver or release of the obligation to pay late charges and interest for payments not made when due.

(b) Other Covenants. A failure by Tenant to observe and perform any other provision of this Lease to be observed or performed by Tenant, where such failure continues for thirty (30) days after written notice thereof by Landlord to Tenant; provided, however, that if the nature of the default is such that the same cannot reasonably be cured within the thirty (30) day period allowed, Tenant shall not be deemed to be in default if Tenant shall, within such thirty (30) day period, commence to cure and thereafter diligently prosecute the same to completion. Notwithstanding the foregoing, any failure by Tenant to comply with the terms and conditions contained in Article 15 (Liability Insurance), Article 16 (Insurance Policy Requirements and Insurance Defaults), Article 32 (Estoppel Certificates) and/or Section 33.25 (Financial Statements and Credit Reports) within the time period for performance set forth in such provisions, where such failure continues for five (5) days after written notice of such failure by Landlord to Tenant; or

(c) Receivership. Either (1) the appointment of a receiver (except a receiver appointed at the instance or request of Landlord) to take possession of all or substantially all of the assets of Tenant, or (2) a general assignment by Tenant for the benefit of creditors, or (3) any action taken or suffered by Tenant under any insolvency or bankruptcy act shall constitute a breach of this Lease by Tenant. In such event, Landlord may, at its option, declare this Lease terminated and forfeited by Tenant, and Landlord shall be entitled to immediate possession of the Leased Premises. Upon such notice of termination, this Lease shall terminate immediately and automatically by its own limitation; or

(d) Multiple Defaults. Any three (3) failures by Tenant to observe and perform any provision of this Lease following written notice and the expiration of any applicable cure period during any twelve (12) month period of the term, as such may be extended, shall constitute, at the option of Landlord, a separate and non-curable default.

ARTICLE 25 REMEDIES UPON DEFAULT

25.1 Termination and Damages. In the event of any material default and breach of this Lease by Tenant, then in addition to any other remedies available to Landlord herein or at law or in equity, Landlord shall have the immediate option to terminate this Lease and all rights of Tenant hereunder by giving written notice of such intention to terminate. In the event that Landlord shall elect to so terminate this Lease, then Landlord may recover from Tenant:

(a) The worth at the time of award of any unpaid rent which had been earned at the time of such termination; plus

(b) 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 Tenant proves 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 the amount of such rental loss that Tenant proves could be 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 which in the ordinary course of events would be likely to result therefrom; and

(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 the applicable law in the state in which the Leased Premises are located.

25.2 Definition. As used in subsections 25.1(a) and (b) above, the "worth at the time of award" is computed by allowing interest at the rate of ten percent (10%) per annum. As used in subsection 25.1(c) above, the "worth at the time of award" is computed by discounting such amount at the discount rate of the Federal Reserve Bank for the region in which the Complex is located at the time of award plus one percent (1%).

25.3 Personal Property. In the event of any default by Tenant, Landlord shall also have the right and option, with or without terminating this Lease, to do any one or combination of the following:

(a) to reenter the Leased Premises and remove all persons and property from the Leased Premises;

(b) to have all of Tenant's fixtures, furniture, equipment, improvements, additions, alterations and other personal property remain upon the Leased Premises during the length of any default by Tenant or a lesser period; or

(c) to require Tenant to forthwith remove such property.

Landlord shall have the sole right to take exclusive possession of such property and to use it, rent, or charge free, until all defaults are cured. If Landlord shall remove property from the Leased Premises, Landlord may, in its sole and absolute discretion, store such property in the Complex, in a public warehouse or elsewhere. All reasonable costs incurred by Landlord under this section, including, without limitation, those for removal and storage (including, without limitation, charges imposed by Landlord for storage within the Complex), shall be at the sole cost of and for the account of Tenant. The rights stated herein are in addition to Landlord's rights described in Article 17.

25.4 Recovery of Rent; Reletting.

(a) In the event of the abandonment of the Leased Premises by Tenant or in the event that Landlord shall elect to reenter as provided in Section 25.3 above, or shall take possession of the Leased Premises pursuant to legal proceeding or pursuant to any notice provided by law, then if Landlord does not elect to terminate this Lease as provided in Section 25.1 above, this Lease shall continue in effect for so long as Landlord does not terminate Tenant's right to possession, and Landlord may enforce all its rights and remedies under this Lease, including, without limitation, Landlord's right from time to time, without terminating this Lease, to either recover all rental as it becomes due or relet the Leased Premises or any part thereof for such term or terms and at such rental or rentals and upon such other terms and conditions as Landlord, in its sole but reasonable discretion, may deem advisable with the right to make alterations and repairs to the Leased Premises. Acts of maintenance or preservation or efforts to relet the Leased Premises or the appointment of a receiver upon initiation of Landlord or other legal proceeding granting Landlord or its agent possession to protect Landlord's interest under this Lease shall not constitute a termination of Tenant's right to possession.

(b) In the event that Landlord shall elect to so relet, then rentals received by Landlord from such reletting shall be applied: first, to the payment of any indebtedness other than rent due hereunder from

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 Leased Premises; fourth, to the payment of 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 by 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 immediately upon demand therefor by 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 or in making such alterations and repairs not covered by the rentals received from such reletting.

(c) No reentry or taking possession of the Leased Premises or any other action under this Section shall be construed as an election to terminate this Lease unless a written notice of such intention be given to Tenant or unless the termination thereof be decreed by a court of competent jurisdiction. Notwithstanding any reletting without termination by Landlord because of any default by Tenant, Landlord may at any time after such reletting elect to terminate this Lease for any such default.

(d) Landlord has the remedy described in California Civil Code Section 1951.4 (Landlord may continue Lease in effect after Tenant's breach and abandonment and recover rent as it becomes due, if Tenant has right to sublet or assign, subject only to reasonable limitations).

25.5 No Waiver. Efforts by Landlord to mitigate the damages caused by Tenant's default in this Lease shall not constitute a waiver of Landlord's right to recover damages hereunder, nor shall Landlord have any obligation to mitigate damages hereunder.

25.6 Curing Defaults. Should Tenant fail to repair, maintain, and/or service the Leased Premises, or any part or contents thereof at any time or times, or perform any other obligations imposed by this Lease or otherwise, then after having given Tenant reasonable notice of the failure or failures and a reasonable opportunity which in no case shall exceed thirty (30) days, to remedy the failure (unless Tenant commenced such remedy within the thirty (30) day period and is diligently proceeding to cure), Landlord may perform or contract for the performance of the repair, maintenance, or other Tenant obligation, and Tenant shall pay Landlord for all out of pocket costs incurred in connection therewith within ten (10) business days of receiving a bill therefor from Landlord.

25.7 Cumulative Remedies. The various rights, options, election powers, and remedies of Landlord contained in this Article and elsewhere in this Lease shall be construed as cumulative and no one of them exclusive of any others or of any legal or equitable remedy which Landlord might otherwise have in the event of breach or default, and the exercise of one right or remedy by Landlord shall not in any way impair its right to any other right or remedy.

ARTICLE 26 BANKRUPTCY

26.1 Bankruptcy Events. If at any time during the term of this Lease there shall be filed by or against Tenant in any court pursuant to any statute either of the United States or of any state a petition in bankruptcy or insolvency or for reorganization or for the appointment of a receiver or trustee of all or a portion of Tenant's property, or if a receiver or trustee takes possession of any of the assets of Tenant, or if the leasehold interest herein passes to a receiver, or if Tenant makes an assignment for the benefit of creditors or petitions for or enters into an arrangement (any of which are referred to herein as "**a bankruptcy event**"), then the following provisions shall apply:

(a) Assume or Reject. At all events any receiver or trustee in bankruptcy or Tenant as debtor in possession ("**debtor**") shall either expressly assume or reject this Lease within the earlier of one hundred twenty (120) days following the filing of a petition in bankruptcy or entry of an "Order for Relief" or such earlier period of time provided by law.

(b) Cure. In the event of an assumption of the Lease by a debtor, receiver or trustee, such debtor, receiver or trustee shall immediately after such assumption (1) cure any default or provide adequate assurances that defaults will be promptly cured; and (2) compensate Landlord for actual pecuniary loss or provide adequate assurances that compensation will be made for actual pecuniary loss; and (3) provide adequate assurance of future performance.

(c) Adequate Assurance. For the purposes of paragraph 26.1(b), adequate assurance of future performance of all obligations under this Lease shall include, but is not limited to:

(1) written assurance that rent and any other consideration due under the Lease shall first be paid before any other of Tenant's costs of operation of its business in the Leased Premises is paid;

(2) written agreement that assumption of this Lease will not cause a breach of any provision hereof including, but not limited to, any provision relating to use or exclusivity in this or any other Lease, or agreement relating to the Leased Premises, or if such a breach is caused, the debtor, receiver or trustee will indemnify Landlord against such loss (including costs of suit and attorneys' fees), occasioned by such breach;

(d) Landlord's Obligation. Where a default exists under the Lease, the party assuming the Lease may not require Landlord to provide services or supplies incidental to the Lease before its assumption by such trustee or debtor, unless Landlord is compensated under the terms of the Lease for such services and supplies provided before the assumption of such Lease.

(e) Assignment. The debtor, receiver, or trustee may assign this Lease only if adequate assurance of future performance by the assignee is provided, whether or not there has been a default under the Lease. Any consideration paid by any assignee in excess of the rental reserved in the Lease shall be the sole property of, and paid to, Landlord. Upon assignment by the debtor or trustee, the obligations of the Lease shall be deemed to have been assumed, and the assignee shall execute an assignment agreement on request of Landlord.

(f) Fair Value. Landlord shall be entitled to the fair market value for the Leased Premises and the services provided by Landlord (but in no event less than the rental reserved in the Lease) subsequent to the commencement of a bankruptcy event.

(g) Reservation of Rights. Landlord specifically reserves any and all remedies available to Landlord in Article 25 hereof or at law or in equity in respect of a bankruptcy event by Tenant to the extent such remedies are permitted by law.

ARTICLE 27 SURRENDER OF LEASE

27.1 No Merger. The voluntary or other surrender of this Lease by Tenant, or a mutual cancellation thereof, shall not work as a merger, and shall, at the option of Landlord, terminate all or any existing subleases or subtenancies, or may, at the option of Landlord, operate as an assignment to it of any or all such subleases or subtenancies.

ARTICLE 28 LANDLORD'S EXCULPATION

28.1 Limited Liability. Redress for any claim against Landlord under this Lease shall be limited to and enforceable only against and to the extent of Landlord's interest in the Building, which interest shall include all rents and profits, and all proceeds from a sale, insurance awards, and condemnation awards. The obligations of Landlord shall not be personally binding on, nor shall any resort be had to the private properties of, any of its or its investment manager's trustees, directors, officers, partners, beneficiaries, members, stockholders, employees, or agents. In no case shall Landlord or Tenant be liable to the other hereunder for any lost profits, damage to business, or any form of special, indirect or consequential damages.

ARTICLE 29 ATTORNEYS' FEES

29.1 Attorneys' Fees. In the event of any litigation or arbitration (if each party in its sole and absolute discretion elects to use arbitration) proceeding between the parties with respect to this Lease, then all costs and expenses, including without limitation, all reasonable professional fees such as appraisers', accountants' and attorneys' fees, incurred by the prevailing party therein shall be paid or reimbursed by the other party. The "**prevailing party**" means the party determined by the court or arbitrator (if the parties elected to use arbitration) to have most nearly prevailed, even if such party did not prevail in all matters, not necessarily the one in whose favor a judgment is rendered. If, on account of any breach or default by Tenant in Tenant's obligations under the terms and conditions of this Lease, it shall become necessary or appropriate for Landlord to employ or consult with an attorney or collection agency concerning or to enforce or defend any of Landlord's rights or remedies arising under this Lease or to collect any sums due from Tenant, Tenant agrees to pay all reasonable costs and fees so incurred by Landlord, including, without limitation, reasonable attorneys' fees and costs. Should Landlord be named as a defendant or requested or required to appear as a witness or produce any documents in any suit brought by Tenant against any other party or against Tenant in connection with or arising out of Tenant's occupancy hereunder, Tenant shall pay to Landlord its reasonable costs and expenses incurred in such suit, including without limitation, all reasonable professional fees such as appraisers', accountants' and attorneys' fees. The provisions of this section shall survive the expiration or termination of this Lease.

ARTICLE 30 NOTICES

30.1 Writing. All notices, demands and requests required or permitted to be given or made under any provision of this Lease shall be in writing and shall be given or made by personal service or by mailing same by registered or certified mail, return receipt requested, postage prepaid, or overnight by Fed Ex or reputable courier which provides written evidence of delivery or other means of confirmation of delivery (such as computer confirmation by Fed Ex), addressed to the respective party at the address set forth in Section 1.2 of this Lease or at such other address as the party may from time to time designate, by a written notice sent to the other in the manner aforesaid.

30.2 Effective Date. Any such notice, demand or request ("**notice**") shall be deemed given or made on the third day after the date so mailed. Notwithstanding the foregoing, notice given by personal delivery to the party at its address as aforesaid shall be deemed given on the day on which delivery is made or the fax is sent, respectively. Notice given overnight by a reputable courier service which provides written evidence of delivery shall be deemed given on the business day immediately following deposit with the courier service.

30.3 Authorization to Receive. Each person and/or entity whose signature is affixed to this Lease as Tenant or as guarantor of Tenant's obligations ("**obligor**") designates such other obligor its agent for the purpose of receiving any notice pertaining to this Lease or service of process in the event of any litigation or dispute arising from any obligation imposed by this Lease.

ARTICLE 31 SUBORDINATION AND FINANCING PROVISIONS

31.1 Priority of Encumbrances. This Lease is subordinate to any ground lease, mortgage, deed of trust or any other hypothecation for security now or hereafter placed upon the real property of which the Leased Premises are a part and to any and all advances made on the security thereof and to all renewals, modifications, consolidations, replacements and extensions thereof. If any mortgagee, trustee or ground lessor shall elect to have this Lease prior to the lien of its mortgage, deed of trust or ground lease, and shall give written notice thereof to Tenant, this Lease shall be deemed prior to such mortgage, deed of trust or ground lease, whether this Lease is dated prior or subsequent to the date of said mortgage, deed of trust or ground lease or the date of recording thereof.

31.2 Execution of Documents. Tenant agrees to execute any commercially reasonable documents required to further effectuate such subordination or to make this Lease prior to the lien of any mortgage, deed of trust or ground lease, as the case may be, if requested by Landlord or any lender. It is understood by all parties that Tenant's failure to execute the subordination documents referred to above may cause Landlord serious financial damage by causing the failure of a financing or sale transaction.

31.3 Attornment. If the holder of any ground lease, mortgage, deed of trust or security described above (or its successor-in-interest), enforces its remedies provided by law or under the pertinent mortgage, deed of trust or security instrument and succeeds to Landlord's interest in the Leased Premises, Tenant shall, upon request of any person succeeding to the interest of such lender as result of such enforcement, attorn to and recognize as its landlord and become the Tenant of said successor-in-interest without change in the terms or other provisions of this Lease or without the execution of any further instrument by Tenant, provided, however, that said successor-in-interest shall not be (i) bound by any payment of rent for more than thirty (30) days in advance, except prepayment in the nature of security for the performance by Tenant of its obligations under this Lease, (ii) liable for any act or omission of any previous landlord (including Landlord), provided that as successor landlord it shall be obligated to cure any continuing default of the prior landlord of which it has received prior written notice and shall be liable for acts or omissions accruing or arising after such successor's succession to the position of landlord and commencement of control and management of the Property, (iii) subject to any offset, defense, recoupment or counterclaim that Tenant may have given to any previous landlord (including Landlord), or (iv) liable for any deposit that Tenant may have given to any previous landlord (including Landlord) that has not, as such, been transferred to said successor-in-interest. Within ten (10) days after receipt of request by said successor-in-interest, Tenant shall execute and deliver an instrument or instruments confirming such attornment, including a non-disturbance, attornment and subordination agreement in a form reasonably required by any such successor-in-interest.

31.4 Notice and Right to Cure Default. Tenant agrees to give any mortgagee(s) and/or trust deed holders, by registered mail, a copy of any notice of default served upon Landlord, provided that prior to such notice Tenant has been notified, in writing (by way of Notice of Assignment of Rents and Leases, or otherwise), of the address of such mortgagees and/or trust deed holders. Tenant further agrees that if Landlord shall have failed to cure such default within the time provided for in this Lease or within a reasonable period of time after Landlord's receipt of such notice of such failure if no specific period of time is provided in this Lease, then the mortgagees and/or trust deed holders shall have an additional thirty (30) days within which to cure such default or, if such default cannot be cured within that time, then such additional time as may be necessary if, within such thirty (30) days, any mortgagee and/or trust deed holder has commenced and is diligently pursuing the remedies necessary to cure such default (including but not limited to commencement of foreclosure proceedings, if necessary to effect such cure), in which event this Lease shall not be terminated while such remedies are being so diligently pursued.

31.5 Non-Disturbance. Landlord has informed Tenant that the Project is currently encumbered by a deed of trust (the "Security Instrument"). At Tenant's sole cost and expense, Landlord shall request the beneficiary (or its servicer) of the existing Security Instrument that encumbers the Project as of the date hereof to issue its standard subordination, non-disturbance and attornment agreement ("**SNDA**"), pursuant to which such beneficiary agrees to recognize this Lease in the event of default under such Security Instrument or sale under such Security Instrument, so long as Tenant is not in default hereunder. Additionally, in connection with any future mortgage, deed of trust or ground lease, Landlord shall request the holder of any such instrument that encumbers the Project to issue its standard SNDA, pursuant to which such party agrees to recognize this Lease in the event of any foreclosure of sale under such instrument, so long as Tenant is not in default hereunder. Landlord's sole obligation under this section is to request such SNDA(s). Tenant is responsible for paying all costs and expenses for such SNDA, including, without limitation, the lender's or ground lessor's attorneys' fees and disbursements. Obtaining any such SNDA is not a condition precedent or subsequent to the Lease, and the failure of such party to issue its SNDA shall not relieve Tenant of any of its obligations under the Lease or constitute a breach or default by Landlord.

ARTICLE 32 ESTOPPEL CERTIFICATES

32.1 Execution by Tenant. Within ten (10) business days after receipt of written request by Landlord, Tenant shall execute and deliver to Landlord an estoppel certificate acknowledging such facts regarding this Lease as Landlord may reasonably require and to the extent true, including without limitation, that to the extent of Tenant's current, actual knowledge (i) this Lease is in full force and effect, binding and enforceable in accordance with its terms and unmodified (or if modified, specifying the written modification documents); (ii) no default exists on the part of Landlord or Tenant under this Lease; (iii) there are no events which with the passage of time, or the giving of notice, or both, would create a default under this Lease; (iv) no rent in excess of one month's rent has been paid in advance; (v) Tenant has not received any written notice of any other sale, assignment, transfer, mortgage or pledge of this Lease or the rent due hereunder; and (vi) Tenant has no defense, setoff, recoupment or counterclaim against Landlord. Any such estoppel certificate may be relied upon by Landlord, any lender and any prospective purchaser of the Building or Complex or any interest therein.

32.2 Financial Statements and Credit Reports. At Landlord's request, Tenant shall deliver to Landlord a copy, certified by an officer of Tenant as being a true and correct copy, of Tenant's most recent audited financial statement, or, if unaudited, certified by Tenant's chief financial officer as being true, complete and correct in all material respects. Tenant hereby authorizes Landlord to obtain one or more credit reports on Tenant at any time, and shall execute such further authorizations as Landlord may reasonably require in order to obtain a credit report.

ARTICLE 33 MISCELLANEOUS PROVISIONS

33.1 Effect of Waiver. The waiver by Landlord or Tenant of any breach of any Lease provision by the other party shall not be deemed to be a waiver of such Lease provision or any subsequent breach of the same or any other term, covenant or condition therein contained. The subsequent acceptance of rent hereunder by Landlord shall not be deemed to be a waiver of any preceding breach by Tenant of any provision of this Lease, other than the failure of Tenant to pay the particular rental so accepted, regardless of Landlord's knowledge of such preceding breach at the time of acceptance of such rent. Any failure by Landlord or Tenant to insist upon strict performance by the other of this Lease of any of the terms and provisions of the Lease or any guaranty of this Lease shall not be deemed to be a waiver of any of the terms or provisions of the Lease or such guaranty, and Landlord or Tenant, as the case may be, shall have the right thereafter to insist upon strict performance by the other of any and all of them.

33.2 Holding Over. Tenant shall pay Landlord for each day Tenant retains possession of the Leased Premises or part of them after termination of this Lease by lapse of time or otherwise at the rate ("**Holdover Rate**") which shall be One Hundred Fifty Percent (150%) of the greater of (a) the amount of the Minimum Monthly Rent for the last period prior to the date of such termination plus Tenant's Proportionate Share of Operating Costs, Real Estate Taxes and Insurance; and (b) the then market rental value of the Leased Premises as determined by Landlord assuming a new lease of the Leased Premises of the then usual duration and other terms, in either case, prorated on a daily basis, and also pay all damages sustained by Landlord by reason of such retention. If Landlord gives notice to Tenant of Landlord's election to such effect, such holding over shall constitute renewal of this Lease for a period from month to month at the Holdover Rate, but if the Landlord does not so elect, no such renewal shall result notwithstanding acceptance by Landlord of any sums due hereunder after such termination; and instead, a tenancy at sufferance at the Holdover Rate shall be deemed to have been created. In any event, no provision of this Section 33.2 shall be deemed to waive Landlord's right of reentry or any other right under this Lease or at law. Additionally, in the event that upon termination of the Lease, Tenant has not fulfilled its obligation with respect to repairs and cleanup of the Leased Premises or any other Tenant obligations as set forth in this Lease, then Landlord shall have the right to perform any such obligations as it deems necessary at Tenant's sole cost and expense, and any time required by Landlord to complete such obligations shall be considered a period of holding over and the terms of this section shall apply.

33.3 Binding Effect. The covenants and conditions herein contained shall, subject to the provisions as to assignment, apply to and bind the heirs, successors, executors, administrators and assigns of all of the parties hereto; and all of the parties hereto shall be jointly and severally liable hereunder.

33.4 Time of the Essence. Time is of the essence of this Lease with respect to each and every article, section and subsection hereof.

33.5 Release of Landlord. If, during the term of this Lease, Landlord shall sell its interest in the Building or Complex of which the Leased Premises form a part, or the Leased Premises, then from and after the effective date of the sale or conveyance, Landlord shall be released and discharged from any and all obligations and responsibilities under this Lease, except those already accrued.

33.6 Rules and Regulations. Landlord or such other person(s) as Landlord may appoint shall have the exclusive control and management of the Common Areas and Building and shall have the right, from time to time, to establish, modify, amend and enforce reasonable rules and regulations with respect thereto; provided, however if any future modification, amendment or supplement to the Rules or Regulations are in conflict with any term, covenant or condition of this Lease, then this Lease shall prevail. Tenant agrees to abide by and conform to all such rules and regulations, and to cause its employees, suppliers, shippers, customers, and invitees to so abide and conform. Landlord shall not be responsible to Tenant for the non-compliance with said rules and regulations by other tenants of the Building or Complex.

33.7 Transfer to Purchaser. If any security be given by Tenant to secure the faithful performance of all or any of the covenants of this Lease on the part of Tenant, Landlord may transfer and/or deliver the security, as such, to the purchaser of the reversion, in the event that the reversion be sold, and thereupon Landlord shall be discharged from any further liability in reference thereto.

33.8 Late Charges. Tenant acknowledges that late payment by Tenant to Landlord of rent or any other payment due hereunder will cause Landlord to incur costs not contemplated by this Lease, the exact amount of such costs being extremely difficult and impractical to fix. Such costs include, without limitation, processing and accounting charges, and late charges that may be imposed on Landlord by the terms of any encumbrance and note secured by any encumbrance covering the Leased Premises. Therefore, if any installment of rent, or any other payment due hereunder from Tenant is not received by Landlord when due, Tenant shall pay to Landlord an additional sum of five percent (5%) of such rent or other charge as a late charge; provided, however, that Tenant shall be entitled to one notice of late payment and a five (5) business day cure period in each twelve (12) month period before any such late charge accrues. The parties agree that this late charge represents a fair and reasonable estimate of the cost that Landlord will incur by reason of late payment by Tenant. Acceptance of any late charge shall not constitute a waiver of Tenant default with respect to the overdue amount, or prevent Landlord from exercising any other rights or remedies available to Landlord

33.9 Interest. Any amount owed by Tenant to Landlord which is not paid within ten (10) days when due shall bear interest at the lesser of ten percent (10%) per annum or the maximum rate of interest permitted to be contracted for by law. However, interest shall not be payable on late charges to be paid by Tenant under this Lease. The payment of interest on such amounts shall not excuse or cure any default by Tenant under this Lease.

33.10 Authorization to Execute. If Tenant is a corporation, limited liability company, partnership or other entity, each individual executing this Lease on behalf of said organization represents and warrants that he is duly authorized to execute and deliver this Lease on behalf of said organization in accordance with a duly adopted resolution or other applicable authorization of said organization, and that this Lease is binding upon said organization in accordance with its terms. Further, if requested by Landlord, Tenant shall, within thirty (30) days after such request, deliver to Landlord a certified copy of a resolution or other applicable authorization of said organization authorizing or ratifying the execution of this Lease.

33.11 Captions. The captions of this Lease are for convenience only and are not a part of this Lease and do not in any way limit or amplify the terms and provisions of this Lease.

33.12 Number and Gender. Whenever the singular number is used in this Lease and when required by the context, the same shall include the plural, the plural shall include the singular, and the masculine gender shall include the feminine and neuter genders, and the word "person" shall include corporation, firm or association. If there be more than one Tenant, the obligations imposed under this Lease upon Tenant shall be joint and several.

33.13 Modifications. This instrument contains all of the agreements, conditions and representations made between the parties to this Lease and may not be modified orally or in any other manner than by an agreement in writing signed by all of the parties to this Lease.

33.14 Payments. Except as otherwise expressly stated, each payment required to be made by Tenant shall be in addition to and not in substitution for other payments to be made by Tenant.

33.15 Severability. The invalidity of any provision of this Lease, as determined by a court of competent jurisdiction, shall in no way affect the validity of any other provision hereof.

33.16 No Offer. The preparation and submission of a draft of this Lease by either party to the other shall not constitute an offer, nor shall either party be bound to any terms of this Lease or the entirety of the Lease itself until both parties have fully executed a final document and an original signature document has been received by both parties. Until such time as described in the previous sentence, either party is free to terminate negotiations with no obligation to the other.

33.17 Light, Air and View. No diminution of light, air, or view by any structure which may hereafter be erected (whether or not by Landlord) shall entitle Tenant to any reduction of Rent, result in any liability of Landlord to Tenant, or in any other way affect this Lease or Tenant's obligations hereunder.

33.18 Public Transportation Information. If and to the extent required by applicable law, Tenant shall establish and maintain during the Term hereof a program to encourage maximum use of public transportation by personnel of Tenant employed on the Leased Premises, including without limitation the distribution to such employees of written materials explaining the convenience and availability of public transportation facilities adjacent or proximate to the Complex, staggering working hours of employees, and encouraging use of such facilities, all at Tenant's sole reasonable cost and expense. Tenant shall comply with all requirements of any local transportation management ordinance.

33.19 Joint and Several Liability. Should Tenant consist of more than one person or entity, they shall be jointly and severally liable on this Lease.

33.20 Survival of Obligations. All obligations of Tenant which may accrue or arise during the term of this Lease or as a result of any act or omission of Tenant during said term shall, to the extent they have not been fully performed, satisfied or discharged, survive the expiration or termination of this Lease.

33.21 Real Estate Brokers. Landlord and Tenant each represents and warrants to the other party that it has not authorized, retained or employed, or acted by implication to authorize, retain or employ, any real estate broker or salesman to act for it or on its behalf in connection with this Lease so as to cause the other party to be responsible for the payment of a brokerage commission, except for the Broker(s) identified in Article 1. Landlord and Tenant shall each indemnify, defend and hold the other party harmless from and against any and all claims by any real estate broker or salesman (other than the Brokers) whom the indemnifying party authorized, retained or employed, or acted by implication to authorize, retain or employ, to act for the indemnifying party in connection with this Lease.

33.22 Waiver of California Code Sections. In this Lease, numerous provisions have been negotiated by the parties, some of which provisions are covered by statute. Whenever a provision of this Lease and a provision of any statute or other law cover the same matter, the provisions of this Lease shall control. Therefore, Tenant waives (for itself and all persons claiming under Tenant) the provisions of Civil Code Sections 1932(2) and 1933(4) with respect to the destruction of the Leased Premises; Civil Code Sections 1941 and 1942 with respect to Landlord's repair duties and Tenant's right to repair; Code of Civil Procedure Section 1265.130, allowing either party to petition the Superior Court to terminate this Lease in the event of a partial taking of the Leased Premises by condemnation as herein defined; and any right of redemption or reinstatement of Tenant under any present or future case law or statutory provision (including Code of Civil Procedure Sections 473 and 1179 and Civil Code Section 3275) in the event Tenant is dispossessed from the Leased Premises for any reason. This waiver applies to future statutes enacted in addition to or in substitution for the statutes specified herein.

33.23 Quiet Enjoyment. So long as Tenant pays all of the Minimum Monthly Rent, all additional rent and other sums and charges under the Lease and otherwise performs all of its obligations in the Lease, Tenant shall have the right to possession and quiet enjoyment of the Leased Premises free from any unreasonable disturbance or interference, subject to the terms and provisions of the Lease. Landlord represents and warrants that it has the full right and power to execute and perform this Lease and to grant the estate demised herein.

33.24 Representation. Neither Tenant nor any of its constituent partners, managers, members or shareholders, nor any beneficial owner of Tenant or of any such partner, manager, member or shareholder (a) is listed on the Specially Designated Nationals and Blocked Persons List maintained by the Office of Foreign Asset Control, Department of the Treasury ("**OFAC**") pursuant to the Executive Order No. 13224, 66 Fed. Reg. 49079 (Sept. 25, 2001) ("**Order**"); (b) is listed on any other list of terrorists or terrorist organizations maintained pursuant to the Order, the rules and regulations of OFAC or any other applicable requirements contained in any enabling legislation or other Executive Orders in respect of the Order (the Order and such other rules, regulations, legislation or orders are collectively called the "**Orders**"); (c) is engaged in activities prohibited in the Orders; or (d) has been convicted, pleaded nolo contendere, indicted, arraigned or custodially detained on charges involving money laundering or predicate crimes to money laundering.

33.25 Guaranty. Notwithstanding anything to the contrary contained herein, this Lease is expressly conditioned upon the full execution and delivery of the a guaranty in the form attached hereto as Exhibit G by the entity identified as the Guarantor therein.

33.26 Counterparts. This Lease may be executed in one or more counterparts, including any facsimile or other electronic version of same, each of which shall be deemed an original, but all of which when taken together shall constitute one agreement. Any facsimile or other electronic signature shall constitute a valid and binding method for executing this Lease. Executed counterparts of this Lease exchanged by facsimile transmission or other electronic means shall be fully enforceable.

[the balance of this page has been intentionally left blank; signature page follows]

IN WITNESS WHEREOF, Landlord and Tenant have executed this Lease as of the day and year first written above.

LANDLORD:

DWF III GATEWAY, LLC,
a Delaware limited liability company

By: Divco West Real Estate Services, Inc.,
A Delaware corporation
Its Agent

By: _____
Name: _____
Its: _____

TENANT:

ACCESIA, INC.,
a Virginia corporation

By: _____
Name: _____
Its: _____

EXHIBIT A – **LEGAL DESCRIPTION OF THE LAND**

The land referred to herein is situated in the State of California, County of San Mateo, City of South San Francisco, and described as follows:

PARCEL ONE:

Being a portion of Parcel 4 as said Parcel is shown on Parcel Map 98-082 filed for Record on June 9, 1999 in Book 71 of Parcel Maps at pages 55 through 57, San Mateo County Records, more particularly described as follows:

Beginning at the Northeasterly corner of said Parcel 4, said corner being a point on the Westerly right of way line of Broadway Boulevard, 94 feet in width, as said Boulevard is shown on said map; Thence leaving said Westerly right of way line, along the general Northerly line of said Parcel 4, the following four courses:

1) Westerly along the arc of a 682.00 foot radius curve to the left, the center of which curve bears South 4° 15’ 39” East, through a central angle of 27° 44’ 47”, an arc distance of 330.27 feet to a point of compound curvature;

2) Southwesterly along the arc of a 270.00 foot radius, tangent curve to the left, through a central angle of 27° 18’ 10”, an arc distance of 128.66 feet to a point of compound curvature;

3) Southerly along the arc of a 130.00 foot radius tangent curve to the left, through a central Angle of 51° 02’ 48”, an arc distance of 115.82 feet; and

4) South 88° 16’ 54” West, 121.98 feet;

Thence leaving said general Northerly line, South 38° 42’ 41” West, 223.44 feet to the general Southwesterly line of said Parcel 4; Thence along said general Southwesterly line, the following three courses:
1) South 51° 17’ 19” East, 317.15 feet;
2) South 38° 42’ 41” West, 262.50 feet; and
3) South 51° 17’ 19” East, 145.00 feet to the Southerly corner of said Parcel 4, said corner being a point on the aforementioned westerly right of way line of Broadway Boulevard;
Thence along said Westerly right of way line of Broadway Boulevard, the following seven courses:
1) North 38° 42’ 41” East, 72.64 feet;
2) North 13° 42’ 41” East, 5.92 feet;
3) North 38° 41’ 41” East, 100.00 feet;
4) North 63° 42’ 41” East, 5.92 feet;
5) North 38° 42’ 41” East, 337.77 feet;
6) Northeasterly and Northerly along the arc of a 703.00 foot radius tangent curve to the left, through a central angle of 41° 18’ 40”, an arc distance of 506.87 feet; and
7) North 2° 35’ 59” West, 98.30 feet to the point of beginning.
Being known as New Parcel A on Lot Line Adjustment No. 18, recorded March 3, 2000, Document No. 2000-025801.

PARCEL TWO:

Easements, over, across and upon all of that certain real property pursuant to the Declaration of Reciprocal Easements dated as of April 22, 1999 and recorded June 10, 1999, as Instrument No. 99101219 and described as follows:

Parcels 1, 2 and 3, as designated on the Map entitled, “ PARCEL MAP 98-082 OF THE LANDS OF HMS BROADWAY OFFICE, L.P.”, which map was filed in the office of the Recorder of the County of San Mateo, State of California on June 9, 1999 in Book 71 of Parcel Maps, at pages 55 through 57.

PARCEL THREE:

Easements, over, across and upon all of that certain real property pursuant to the Declaration of Reciprocal Easements dated as of April 22, 1999 and recorded June 10, 1999, as Instrument No. 99101219 and described as follows:

Parcels A, B, and C as shown on the map of Parcel Map 99-095 filed June 26, 2000, Book 72 of Parcel Maps, pages 90 and 91, San Mateo County Records.

PARCEL FOUR:

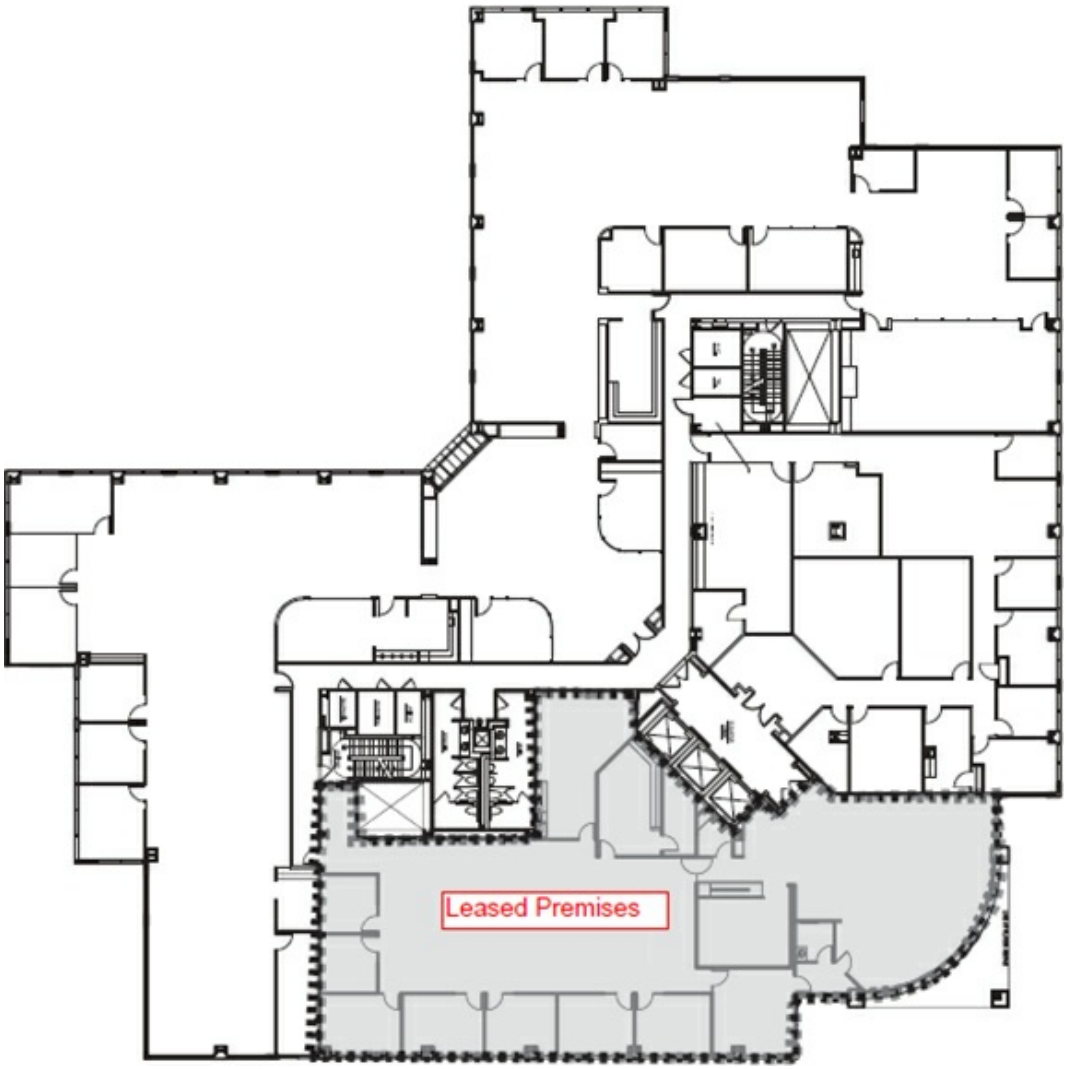
Easements, over, across and upon all of that certain real property pursuant to the Declaration of Reciprocal Easements dated June 1, 2000, as Instrument No. 2000-077496 and described as follows:

Parcels A, B and C as shown on the map of Parcel Map 99-095 filed June 26, 2000, Book 72 of Parcel Maps, pages 90 and 91, San Mateo County Records.

APN' s: 015-024-290
015-024-360
JPN' s: 107 027 000 22 thru 23 T 015-024-3 10

EXHIBIT B – FLOOR PLAN OF LEASED PREMISES

Exhibit B is intended only to show the general layout of the Leased Premises. The depiction of interior windows, cubicles, modules, furniture and equipment in this Exhibit is for illustrative purposes only, but does not mean that such items exist. Landlord is not required to provide, install or construct any such items. It is not to be scaled; any measurements or distances shown should be taken as approximate. The inclusion of elevators, stairways electrical and mechanical closets, and other similar facilities for the benefit of occupants of the Building does not mean such items are part of the Leased Premises.



The above floor plan illustrates the second floor of the Building

EXHIBIT C – WORK LETTER FOR CONSTRUCTION OBLIGATIONS

This Exhibit C forms a part of that certain Office Lease (the "**Lease**") by and between DWF III Gateway, LLC, a Delaware limited liability company, as Landlord, and Accesia, Inc., a Virginia corporation, as Tenant, to which this Exhibit is attached. If there is any conflict between this Exhibit and the Lease, this Exhibit shall govern.

1. Defined Terms. All defined terms referred to in this Exhibit shall have the same meaning as defined in the Lease to which this Exhibit is a part, except where expressly defined to the contrary.

2. Additional Definitions. Each of the following terms shall have the following meaning:

"**Force Majeure Delays**" - Any delay, other than a Tenant Delay, by Landlord in completing the Tenant Improvements by the Estimated Commencement Date set forth in the Lease by reason of (i) any strike, lockout or other labor trouble or industrial disturbance (whether or not on the part of the employees of either party hereto), (ii) governmental preemption of priorities or other controls in connection with a national or other public emergency, civil disturbance, riot, war, sabotage, blockade, embargo, inability to secure customary materials, supplies or labor through ordinary sources by reason of regulation or order of any government or regulatory body, or (iii) shortages of fuel, materials, supplies or labor, (iv) lightning, earthquake, fire, storm, tornado, flood, washout explosion, inclement weather or any other similar industry-wide or Building-wide cause beyond the reasonable control of Landlord, or (v) any other cause, whether similar or dissimilar to the above, beyond Landlord's reasonable control. The time for performance of any obligation of Landlord to construct the Tenant Improvements under this Exhibit or the Lease shall be extended at Landlord's election by the period of any delay caused by any of the foregoing events.

"**Space Plan**" - That certain Space Plan attached hereto as Exhibit C-1. Landlord and Tenant hereby approve of the Space Plan.

"**Substantial Completion**," "**Substantially Complete**," "**Substantially Completed**" - The terms Substantial Completion, Substantially Completed and Substantially Complete shall mean when the following have occurred or would have occurred but for Tenant Delays:

(a) Landlord has delivered to Tenant a written notice stating that the Tenant Improvements have been Substantially Completed substantially in accordance with the Construction Plans, except "punch list" items which may be completed without materially impairing Tenant's use of the Premises or a material portion thereof; and

(b) Landlord has obtained from the appropriate governmental authority a temporary, conditional or final certificate of occupancy or signed building permit (or equivalent), if one is required, for the Tenant Improvements permitting occupancy of the Premises by Tenant.

"**Tenant Delay**" - Any delay incurred by Landlord in completing the Tenant Improvements due to (i) a delay by Tenant, or by any person employed or engaged by Tenant, in approving or delivering to Landlord any samples, plans, schedules or information beyond the applicable time period set forth in this Exhibit, if any; (ii) a delay in the performance of work in the Leased Premises by Tenant or any person employed by Tenant which causes a delay by Landlord; (iii) any changes requested by Tenant in or to previously approved work; (iv) requests for materials and finishes which are not readily available, and/or delays in delivery of any materials specified by Tenant through change orders; (v) interference by Tenant with the construction of the Tenant Improvements; or (vi) any delay attributable to the failure of Tenant to pay, when due, any amounts required to be paid by Tenant pursuant to this Exhibit or otherwise provided in the Lease.

"**Tenant Improvements**" - The improvements to be installed by Landlord in the Leased Premises consisting of the following work:

1. New building standard carpeting shall be installed throughout the Leased Premises in the areas where carpeting currently exists (with style and color to be selected by Tenant from Building standards);

2. The interior walls of the Leased Premises shall be painted with one coat of paint with a color comparable to the existing color;

3. Demolish the demising walls in three (3) private offices along the window line as noted in the Space Plan;

4. Install additional door to the small conference room as noted in the Space Plan; and

5. Install the demising wall as noted in the Space Plan.

The type, quality and color of the carpet, paint and materials shall be Landlord's standard building color and materials. If Tenant wants any carpet, paint or color or materials that is not offered by Landlord as its building standard, such request by Tenant shall be subject to Landlord's reasonable approval and Tenant any additional time to order and obtain such materials shall constitute a Tenant Delay and all additional costs for such materials shall be paid by Tenant within thirty (30) days after request by Landlord. Following the completion of the Tenant Improvement, Landlord shall balance the HVAC equipment if needed.

2. Construction of the Tenant Improvements.

2.1 Construction. Landlord shall construct the Tenant Improvements. The construction contract for constructing the Tenant Improvements and the contractor(s) to perform the work shall be approved and/or selected, as the case may be, by Landlord at its sole and absolute discretion without the consent of Tenant.

2.2 Tenant's Responsibility. Tenant shall be solely responsible for the suitability for Tenant's needs and business of the design and function of the Leased Premises. Tenant shall also be responsible for procuring or installing in the Leased Premises any trade fixtures, equipment, furniture, furnishings, telephone equipment or other personal property ("**Personal Property**") to be used in the Leased Premises by Tenant, and the cost of such Personal Property shall be paid by Tenant. Tenant shall conform to the Building's wiring standards in installing any telephone, computer and communication equipment and shall be subject to any and all rules of Landlord during construction.

3. Payment of Construction Costs. Landlord shall pay for the costs to construct the Tenant Improvements based on the Tenant Improvements described as of the date hereof. Any additional costs due to changes in the Tenant Improvements requested by Tenant, or the selection by Tenant of non-standard building materials or colors, or as a result of any Tenant Delay shall be paid by Tenant as provided in section 4 below.

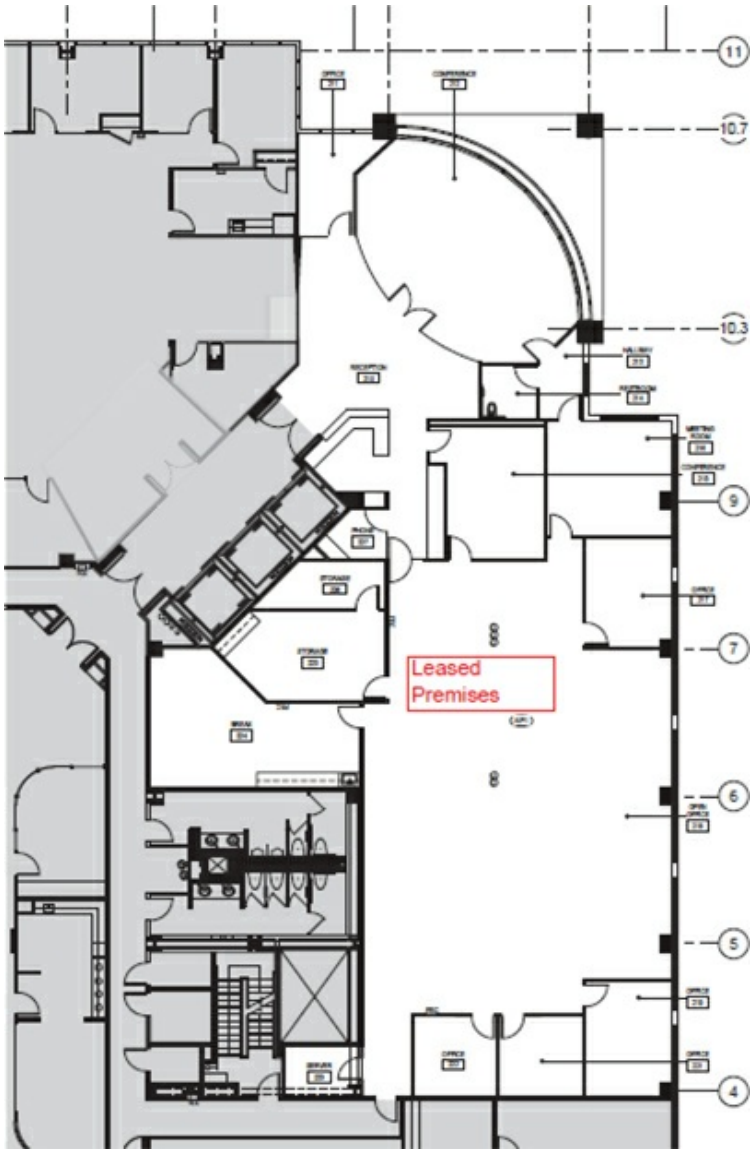
4. Changes in Work. Tenant shall not be permitted to make any change in the Tenant Improvements without the prior written approval of Landlord, which may be exercised, and made subject to such conditions as Landlord may require, in its sole and absolute discretion. Any change approved by Landlord that in Landlord's reasonable judgment results in a delay in constructing the Tenant Improvements shall be deemed a Tenant Delay, and shall extend the time period by which Landlord must Substantially Complete the Tenant Improvements, but shall not extend or postpone the date for payment of rent or for commencement of the Term under this Lease. All "hard" and "soft" costs of such changes (including the cost to obtain any permits and construct any additional improvements required as a result thereof, and the cost for materials and labor), the additional costs as a result of any other Tenant Delay, and all other additional costs incurred by Landlord from resulting delays in completing the Tenant Improvements, shall be paid by Tenant to Landlord within thirty (30) days after Tenant's receipt of notice from Landlord. An estimate of the cost and any anticipated delay in the Commencement Date shall be provided to Tenant prior to the commencement of such work. If the same is not acceptable to Tenant, Tenant shall have the right to withdraw its request for such work. If Landlord does not receive such payment within said thirty (30) day period, Landlord shall have the right, in addition to any other rights or remedies available under the Lease, at law or in equity, to (i) discontinue all or any portion of the work until it receives said payment; (ii)

proceed with the other work not affected by such change until such payment is received; (iii) proceed with the work contemplated with such change; or (iv) proceed with the work without making such change; in which case the commencement or completion of such work shall not be deemed a waiver of Tenant's obligation to pay for same or any additional costs or expenses incurred as a result thereof. Any delay caused as a result of such a change or request for a change shall constitute a Tenant Delay. Tenant has requested, and Landlord has approved, of the following Tenant changes, which shall be installed by Landlord as part of the Tenant Improvements, at Tenant's sole cost and expense and otherwise subject to the terms of this Section 4:

1. Upgrade the new conference room door to a glass door;
2. Demise first (1st) office with a glass door and glass window;
3. Remove and replace existing baseboards;
4. Replace or overlay kitchen flooring;
5. Replace all light bulbs with new light bulbs.

5. Tenant's Lease Default. Notwithstanding any provision to the contrary contained in the Lease, if an event of default by Tenant under the Lease, or a default by Tenant under this Exhibit, has occurred at any time on or before the Substantial Completion of the Tenant Improvements, then in addition to all other rights and remedies granted to Landlord pursuant to the Lease, (i) Landlord shall have the right to cause cease the construction of the Tenant Improvements (in which case, Tenant shall be responsible for any delay in the Substantial Completion of the Tenant Improvements caused by such work stoppage), and (ii) all other obligations of Landlord under the terms of this Exhibit shall be forgiven until such time as such default is cured pursuant to the terms of the Lease.

EXHIBIT C-1 SPACE PLAN



The above floor plan illustrates the second floor of the Building

EXHIBIT D – ACKNOWLEDGEMENT OF COMMENCEMENT DATE

This Acknowledgement of Commencement Date is dated as of , 2012 between DWF III Gateway, LLC, a Delaware limited liability company ("**Landlord**"), and Accesia, Inc., a Virginia corporation ("**Tenant**"), who entered into a lease dated for reference purposes as of , 2012,covering certain premises located in Suite 200 of the Building at 701 Gateway Boulevard, South San Francisco, California. All capitalized terms, if not defined herein, shall be defined as they are defined in the Lease.

1. The parties to this document hereby agree that the date of _____, is the "Commencement Date" of the Term.

2. Tenant hereby confirms the following:

(a) That it has accepted possession of Leased Premises pursuant to the terms of the Lease; and

(b) That the Tenant Improvements required to be furnished according to the Lease by Landlord in the Leased Premises have been Substantially Completed.

3. This agreement, each and all of the provisions hereof, shall inure to the benefit, or bind, as the case may require, the parties hereto, and their respective heirs, successors, and assigns subject to the restrictions upon assignment and subletting contained in the Lease.

4. Each party represents and warrants to the other that it is duly authorized to enter into this Amendment and perform its obligations without the consent or approval of any other party and that the person signing on its behalf is duly authorized to sign on behalf of such party.

5. This document may be executed in one or more counterparts, including any facsimile or other electronic version of same, each of which shall be deemed an original, but all of which when taken together shall constitute one agreement. Any facsimile or other electronic signature shall constitute a valid and binding method for executing this document. Executed counterparts of this document exchanged by facsimile transmission or other electronic means shall be fully enforceable.

LANDLORD:

DWF III Gateway, LLC,
a Delaware limited liability company

By: Divco West Real Estate Services, Inc.,
a Delaware corporation
Its Agent

By: _____
Name: _____
Its: _____

TENANT:

Accesia, Inc.,
a Virginia corporation

By: _____
Name: _____
Its: _____

EXHIBIT E – RULES AND REGULATIONS

All capitalized terms referred to in this Exhibit shall have the same meaning provided in the Office Lease to which this Exhibit is attached, except where expressly provided to the contrary in this Exhibit E.

1. No sidewalks, entrance, passages, courts, elevators, vestibules, stairways, corridors or halls shall be obstructed or encumbered by Tenant or used for any purpose other than ingress and egress to and from the Leased Premises and if the Leased Premises are situated on the ground floor of the Building, Tenant shall further, at Tenant's own expense, keep the sidewalks and curb directly in front of the Leased Premises clean and free from rubbish.

2. No awning or other projection shall be attached to the outside walls or windows of the Building or Complex without the prior written consent of Landlord in its sole and absolute discretion. No curtains, blinds, shades, drapes or screens shall be attached to or hung in, or used in connection with any window or door of the Leased Premises, without the prior written consent of Landlord in its sole and absolute discretion. Such awnings, curtains, blinds, shades, drapes, screens and other fixtures must be of a quality, type, design, color, material and general appearance approved by Landlord, and shall be attached in the manner approved by Landlord in its sole and absolute discretion. All lighting fixtures hung in offices or spaces along the perimeter of the Leased Premises must be of a quality, type, design, bulb color, size and general appearance approved by Landlord.

3. No sign, advertisement, notice, lettering, decoration or other thing shall be exhibited, inscribed, painted or affixed by Tenant on any part of the outside or inside of the Leased Premises or of the Building, without the prior written consent of Landlord in its sole and absolute discretion. In the event of the violation of the foregoing by Tenant, Landlord may remove same without any liability, and may charge the expense incurred by such removal to Tenant.

4. The sashes, sash doors, skylights, windows and doors that reflect or admit light or air into the halls, passageways or other public places in the Building or Complex shall not be covered or obstructed by Tenant, nor shall any bottles, parcels or other articles be placed on the window sills or in the public portions of the Building or Complex.

5. No show cases or other articles shall be put in front of or affixed to any part of the exterior of the Building or Complex, nor placed in public portions thereof without the prior written consent of Landlord.

6. The restrooms, toilets, wash bowls, and other apparatus shall not be used for any purpose other than that for which they were constructed, and no sweepings, rubbish, rags or other foreign substance of any kind shall be thrown into them. The expense of any breakage, stoppage, or damage resulting from violation of this rule shall be borne by the tenant who caused, or whose agents, servants, employees, contractors, visitors or licensees caused, the breakage, stoppage, or damage.

7. Tenant shall not mark, paint, drill into or in any way deface any part of the Leased Premises or the Building or Complex. No boring, cutting or stringing of wires shall be permitted, except with the prior written consent of Landlord, and as Landlord may direct, in its sole and absolute discretion.

8. No animal or bird or vehicle of any kind shall be brought into or kept in the Leased Premises or the Building, except seeing-eye dogs or other seeing-eye animals or other animals or equipment required by any disabled employee or invitee of Tenant. Bicycles are to be kept at the bicycle rack for the Complex.

9. Prior to leaving the Leased Premises for the day, Tenant shall draw or lower window coverings and extinguish all lights. Tenant shall assume all responsibility, including keeping doors locked and other means of entry to the Leased Premises closed, for protecting the Leased Premises from theft, robbery, and pilferage.

10. Tenant shall not make, or permit to be made, any unseemly or disturbing noises or disturb or interfere with any occupant of the Building or Complex, or neighboring buildings or premises, or those having business with them. Tenant shall not harass or annoy any occupant of the Building or Complex, including, without limitation, any act or conduct that may violate, breach or infringe upon any federal, state or local laws or civil rights, including those pertaining to the protection of the civil rights of any person based on sex, race, religion, sexual preference, age or other consideration. Tenant shall not throw anything out of the doors, windows or skylights or down the passageways.

11. Neither Tenant nor any of Tenant's agents, servants, employees, contractors, visitors or licensees shall at any time bring or keep upon the Leased Premises, Building or Complex any flammable, combustible or explosive fluid, chemical or substance.

12. No additional locks, bolts or mail slots of any kind shall be placed upon any of the doors or windows by Tenant, nor shall any change be made in existing locks or the mechanism thereof. Tenant must, upon the termination of the tenancy, restore to Landlord all keys of stores, offices and toilet rooms, either furnished to, or otherwise procured by Tenant, and in the event of the loss of any keys so furnished, Tenant shall pay to Landlord the cost thereof.

Two keys will be furnished by Landlord for the Leased Premises, and any additional keys required by Tenant must be obtained from Landlord at a reasonable cost to be established by Landlord.

If there is a card key or other form of keyless entry to the Building, Landlord shall provide Tenant as of the commencement of the Term of its lease with one keyless fobs for each 250 square feet of rentable space in such Tenant's Leased Premises for access to the Building and elevator. All additional keyless cards or fobs requested by Tenant and any replacement for any lost or damaged keyless cards or fobs will be provided by Landlord at a cost established by Landlord from time to time for each additional or replaced keyless fob, as cost may be increased by Landlord from time to time.

13. No furniture, freight, or equipment of any kind may be brought into or out of the Building without prior notice to Landlord. All moving activity into or out of the Building must be scheduled with Landlord and done only at the time and in the manner designated by Landlord. No service deliveries (other than messenger services) shall be allowed between the hours of 7:00 a.m. and 9:00 a.m., 12:00 p.m. and 1:00 p.m., and 4:00 p.m. and 6:00 p.m., Monday through Friday. Landlord may at any time restrict the elevators and areas of the Building into which messengers may enter and may require that deliveries be left at the lobby security desk for pickup by Tenant. Landlord may prescribe the weight, size, and position of all safes and other heavy property brought into the Building and the times and manner of moving those items within and out of the Building. Tenant shall not overload the floor of the Leased Premises. If considered necessary by Landlord, safes and other heavy objects must stand on supports that are adequate to distribute the weight properly. Landlord shall not be responsible for loss of or damage to any safe or property. Any damage to any part of the Building or to its contents, occupants, or visitors caused by moving or maintaining any safe or other property referred to in this clause shall be the sole responsibility and expense of Tenant. Landlord reserves the right to inspect all safes, freight or other bulky articles to be brought into the Building and to exclude from the Building all safes, freight or other bulky articles which violate any of these Rules and Regulations or the Lease of which these Rules and Regulations are a part. No packages, supplies, equipment, or merchandise may be received in the Building or carried up or down in the elevators, except between those hours and in that specific elevator that Landlord shall designate.

14. Landlord shall have the right to prohibit any advertising or business conducted by Tenant referring to the Building which, in Landlord's good faith opinion, tends to impair the reputation of the Building or its desirability as a first class building for offices and/or commercial services and upon notice from Landlord, Tenant shall refrain from or discontinue such advertising.

15. Landlord reserves the right to exclude from the Building between the hours of 6:00 p.m. and 8:00 a.m. Monday through Friday, after 1:00 p.m. on Saturdays and at all hours Sundays and legal holidays, all persons who do not present a pass to the Building issued by Landlord. Such hours are subject to change in Landlord's sole and absolute discretion upon written from Landlord. Landlord may furnish passes to Tenant so that Tenant may validate and issue same. Tenant shall safeguard said passes and shall be responsible for all acts of persons in or about the Building who possess a pass issued to Tenant. Landlord reserves the right to exclude or expel from the Building and Complex any person who, in Landlord's judgment, is under the influence of alcohol or drugs or commits any act in violation of any of these Rules and Regulations.

16. When departing after the Building's normal business hours, Tenant and Tenant's employees and agents must be sure that the doors to the Building are securely closed and locked. Any person, including Tenant and Tenant's employees and agents, who enters or leaves the Building at any time when it is locked or at any time considered to be after the Building's normal business hours, may be required to sign the Building register. Access to the Building may be refused unless the person seeking access has proper identification or has previously arranged a pass for access to the Building. Landlord and its agents shall not be liable for damages for any error concerning the admission to, or exclusion from, the Building of any person. Landlord reserves the right, in the event of invasion, mob, riot, public excitement, or other commotion, to prevent access to the Building or Complex during the continuance of that event by any means it considers appropriate for the safety and protection of life and property.

17. Tenant's contractors shall, while in the Leased Premises, Building or elsewhere in the Complex, be subject to and under the control and direction of the Building Manager (but not as agent or servant of said Building Manager or of Landlord).

18. If the Leased Premises is or becomes infested with vermin as a result of the use or any misuse or neglect of the Leased Premises by Tenant, its agents, servants, employees, contractors, visitors or licensees, Tenant shall forthwith at Tenant's expense cause the same to be exterminated from time to time to the satisfaction of Landlord and shall employ such licensed exterminators as shall be approved in writing in advance by Landlord.

19. The requirements of Tenant will be attended to only upon application at the office of the Building. Building personnel shall not perform any work or do anything outside of their regular duties unless under special instructions from the office of the Landlord.

20. Tenant and Tenant's employees, agents, contractors and invitees shall not loiter in or on the entrances, corridors, sidewalks, lobbies, halls, stairways, elevators, or common areas for the purpose of smoking tobacco products or for any other purpose. Tenant and Tenant's employees and agents shall not obstruct those areas but use them only as a means of ingress to and egress from the Leased Premises, Building or Complex. Canvassing, soliciting and peddling in the Building or Common Areas of the Complex are prohibited and Tenant shall cooperate to prevent the same.

21. No air conditioning unit or system or other apparatus shall be installed or used by Tenant without the written consent of Landlord, which consent shall not be unreasonably withheld, conditioned or delayed. Tenant shall not waste electricity, water, or air-conditioning and shall cooperate fully with Landlord to ensure the most effective operation of the Building's heating and air-conditioning system.

22. There shall not be used in any premises, or in the public halls, plaza areas, lobbies, or elsewhere in the Building or Complex, either by Tenant or by jobbers or others, in the delivery or receipt of merchandise, any hand trucks or dollies, except those equipped with rubber tires and sideguards.

23. Tenant, Tenant's agents, servants, employees, contractors, licensees, or visitors shall not park any vehicles in any driveways, service entrances, or areas posted "No Parking" and shall comply with any other parking restrictions imposed by Landlord from time to time.

24. Tenant shall install and maintain, at Tenant's sole cost and expense, an adequate visibly marked (at all times properly operational) fire extinguisher next to any duplicating or photocopying machine or similar heat producing equipment, which may or may not contain combustible material, in the Leased Premises, Building or Complex.

25. Tenant shall keep its window coverings closed during any period of the day when the sun is shining directly on the windows of the Leased Premises.

26. Tenant shall not use the name of the Building for any purpose other than as the address of the business to be conducted by Tenant in the Leased Premises, nor shall Tenant use any picture of the Building in its advertising, stationery or in any other manner without the prior written permission of Landlord. Landlord expressly reserves the right at any time to change said name without in any manner being liable to Tenant therefor.

27. Tenant shall not prepare any food nor do any cooking, operate or conduct any restaurant, luncheonette or cafeteria for the sale or service of food or beverages to its employees or to others, except that food and beverage preparation by Tenant's employees using microwave ovens or coffee makers shall be permitted; provided, however, no odors of cooking or other processes may emanate from the Leased Premises. Tenant shall not install or permit the installation or use of any vending machine or permit the delivery of any food or beverage to the Leased Premises except by such persons and in such manner as are approved in advance in writing by Landlord.

28. Business machines and mechanical equipment shall be placed and maintained by Tenant at Tenant's expense in settings sufficient in Landlord's judgment to absorb and prevent vibration, noise and annoyance. Tenant shall not install any machine or equipment which causes noise, heat, cold or vibration to be transmitted to the structure of the Building in which the Leased Premises are located without Landlord's prior written consent in its sole and absolute discretion. Tenant shall not place a load upon any floor of the Leased Premises exceeding the floor load per square foot which such floor was designed to carry and which is allowed by law.

29. Smoking is prohibited in the Building, including, without limitation, the main lobby, all hallways, all elevators, all elevator lobbies and all restrooms.

30. Tenant shall store all trash and garbage within the interior of the Leased Premises. Tenant shall not place or have placed in the trash boxes or receptacles any material that may not or cannot be disposed of in the ordinary and customary manner of removing and disposing of trash in the vicinity of the Building. In disposing of trash and garbage, Tenant shall comply fully with any law or ordinance governing that disposal. All trash, garbage, and refuse disposal shall be made only through entry-ways and elevators provided for that purpose and shall be made only at times designated by Landlord.

31. Tenant shall comply with requests by Landlord that Tenant inform Tenant's employees of items of importance to Landlord.

32. Tenant may not introduce telephone, cable or other communication or telecommunication wires or other wires into the Leased Premises without first obtaining Landlord's reasonable approval of the method and location of such introduction. No boring or cutting for telephone wires or other wires shall be allowed without Landlord's consent, which consent shall not be unreasonably withheld, conditioned or delayed. The location of telephones, call boxes, and other office equipment affixed to the Leased Premises shall be subject to Landlord's prior reasonable approval.

33. Provided any additional or modified Rules and Regulations do not conflict with the terms and conditions of this Lease, Landlord reserves the right at any time to change or rescind any one or more of these Rules and Regulations or to make any additional reasonable Rules and Regulations that, in Landlord's sole, but good faith discretion, may be necessary for:

(a) The management, safety, care, and cleanliness of the Leased Premises, Building or Complex;

(b) The preservation of good order; or

(c) The convenience of other occupants and tenants in the Building or Complex.

Landlord may waive any one or more of these Rules and Regulations for the benefit of any particular tenants. No waiver by Landlord shall be construed as a waiver of those Rules and Regulations in favor of any other tenant, and no waiver shall prevent Landlord from enforcing those Rules or Regulations against any other tenant of the Building or Complex.

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EXHIBIT F – OPTION TO EXTEND AND FIRST OFFER RIGHT

This Exhibit F (this "**Exhibit**") is made in connection with and is a part of that certain Office Lease, dated as of November 13, 2012, by and between DWF III Gateway, LLC, a Delaware limited liability company, as Landlord, and Accesia, Inc., a Virginia corporation, as Tenant, (the "**Lease**").

1. Definitions and Conflict. All capitalized terms referred to in this Exhibit shall have the same meaning as provided in the Lease, except as expressly provided to the contrary in this Exhibit. In case of any conflict between any term or provision of the Lease and any exhibits attached thereto and this Exhibit, this Exhibit shall control.

2. Option to Extend and Rent During the Extended Period: Tenant shall have one option to extend the initial Term of the Lease for a period of five (5) years (the period shall be referred to as the "**Extension Period**") by giving written notice of exercise of such option ("**Extension Option Notice**") at least three hundred sixty-five (365) days, but not more one year and ninety days prior to the expiration of the initial Term of the Lease. If Tenant is in default under any term or provision of the Lease (following written notice and the expiration of any applicable cure period) on the date of giving an Extension Option Notice, or if Tenant is in default under any term or provision of the Lease (following written notice and the expiration of any applicable cure period) on the date of the applicable Extension Period is to commence, the Extension Period at the option of Landlord shall not commence and the Lease shall expire at the end of initial Term. The Extension Period shall be upon all of the terms and provisions of the Lease, except that (i) the Minimum Monthly Rent during such Extension Period shall be one hundred percent (100%) of then Fair Market Rent (as defined below) (ii) any work, allowance, free rent, or concession provided by Landlord in connection with the commencement of the initial Term shall not apply; and (iii) Tenant shall not have any additional option to extend.

2.1 Fair Market Rent. The term "**Fair Market Rent**" for purposes of determining Minimum Monthly Rent during the Extension Period shall mean the minimum monthly rent generally applicable to full service office leases at first class buildings of comparable size, age, quality of the Building and Leased Premises in the South San Francisco, California area projected as of the first day of the Extension Period by giving due consideration for the quality of the Building and improvements therein (including the quality of the then existing improvements in the Leased Premises), the quality of the credit of the tenants, tenant improvement allowance, rent credits, or abated rent then being offered, for a term comparable to the Extension Period at the time the commencement of the Extension Period is scheduled to commence, without any deduction for commissions whether or not incurred by Landlord, and otherwise subject to the terms and conditions of this Lease that will be applicable during the Extension Period.

2.2 Procedure to Determine Fair Market Rent. Landlord shall notify Tenant in writing of Landlord's determination of the Fair Market Rent ("**Landlord's FMR**") within thirty (30) days after receipt of the Extension Option Notice. Within thirty (30) days after receipt of such written notice of Landlord's FMR, Tenant shall have the right either to: (i) accept Landlord's FMR, or (ii) elect to have the Fair Market Rent determined in accordance with the appraisal procedure set forth below. The failure of Tenant to provide written notice of its election under the preceding sentence shall be deemed an acceptance of Landlord's FMR. The election (or deemed election) by Tenant under this section shall be non-revocable and binding on the parties.

2.3 Appraisers. If Tenant has elected to have the Fair Market Rent determined by an appraisal, then within ten (10) business days after receipt of Tenant's written notice of such an election, each party, by giving written notice to the other party, shall appoint a broker to render a written opinion of the Fair Market Rent for the Extension Period. Each broker must be a real estate broker licensed in the State where the Building is located for at least five years and with at least five years experience in the appraisal of rental rates of leases or in the leasing of space in office buildings in the area in which the Building is located and otherwise unaffiliated with either Landlord or Tenant. The two brokers shall render their written opinion of the Fair Market Rent for the Extension Period to Landlord and Tenant within thirty (30) days after the appointment of

the second broker. If the Fair Market Rent of each broker is within three percent (3%) of each other, then the average of the two appraisals of Fair Market Rent shall be the Fair Market Rent for the Extension Period. If one party does not appoint its broker as provided above, then the one appointed shall determine the Fair Market Rent. The Fair Market Rent so determined under this section shall be binding on Landlord and Tenant.

2.4 Third Appraiser. If the Fair Market Rent determined by the brokers is more than three percent (3%) apart, then the two brokers shall pick a third broker within ten (10) business days after the two brokers have rendered their opinions of Fair Market Rent as provided above. If the two brokers are unable to agree on the third broker within said ten (10) business day period, Landlord and Tenant shall mutually agree on the third broker within ten (10) business days thereafter. If the parties do not agree on a third qualified broker within ten (10) business days, then at the request of either Landlord or Tenant, such third broker shall be promptly appointed by the then Presiding Judge of the Superior Court of the State of California for the County where the Building is located. The third broker shall be a person who has not previously acted in such capacity for either party and must meet the qualifications stated above.

2.5 Impartial Appraisal. Within thirty (30) days after its appointment, the third broker (the "**Third Party**"), shall render its written opinion by selecting the Fair Market Rent made Landlord's or Tenant's broker to be the Fair Market Rent for the Extension Period. The Third Party may not offer any different opinion or recommendation of Fair Market Rent. The Fair Market Rent determined in accordance with the foregoing procedure shall be binding on the parties.

2.6 Appraisal Costs. Each party shall bear the cost of its own appraiser and one-half (1/2) the cost of the third appraiser.

2.7 Acknowledgment of Rent. After the Fair Market Rent for the Extension Period has been established in accordance with the foregoing procedure, Landlord and Tenant shall promptly execute an amendment to the Lease to reflect the minimum monthly rent for the Extension Period.

3. Right of First Offer Expansion. If Tenant is not in default of any term or provision of the Lease (following written notice and the expiration of any applicable cure period) and has not assigned the Lease or sublet any space covered thereby or agreed to do so in the future (other than pursuant to a Permitted Transfer), and *is* occupying and actively conducting business in not less than 90 % of the Rentable Area of the Leased Premises, Tenant shall have the one time right only during the Term (the "**First Offer Period**"), unless Tenant does not exercise its option to extend the Term as provided in Section 2 above in which case the First Offer Period shall expire one year prior to the expiration of the initial Term, not any extended term, of the Lease to expand into the suite shown on Schedule 1 hereto (the "**Expansion Space**") solely in accordance with the terms of this Section 3 and its subsections. The Expansion Space contains approximately 5,275 square feet of Rentable Area. Tenant's right of first offer to lease the Expansion Space may be referred to as the "**First Offer Right**."; The First Offer Right shall not be applicable to (i) a renewal, expansion, assignment or sublease of any lease or any new lease with any existing tenant or any partner, attorney, employee, agent or affiliate of any existing tenant for space in any portion of the Expansion Space, or (ii) any expansion options or similar rights granted to any other existing tenant as of the date of this Lease in the Building pursuant to its lease.

3.1 Process. During First Offer Period, if Tenant wants to lease additional space in the Expansion Space, Tenant shall notify Landlord of Tenant desire to lease all of the Expansion Space ("**Tenant's Expansion Request**"). If Tenant does not provide Tenant's Expansion Request during the First Offer Period or if Landlord determines in its good faith discretion that space is not available or will not be available during the First Offer Period, then First Offer Right under Section 3 and its subsections automatically will terminate and be of no further force or effect. If Landlord determines in its good faith discretion that the Expansion Space is available for lease or will be available for lease within the following six months after Landlord's receipt of Tenant's Expansion Request, Landlord will propose such space to Tenant for lease at a rental rate and other terms and conditions acceptable to Landlord in its sole and absolute discretion ("**Landlord's Expansion**

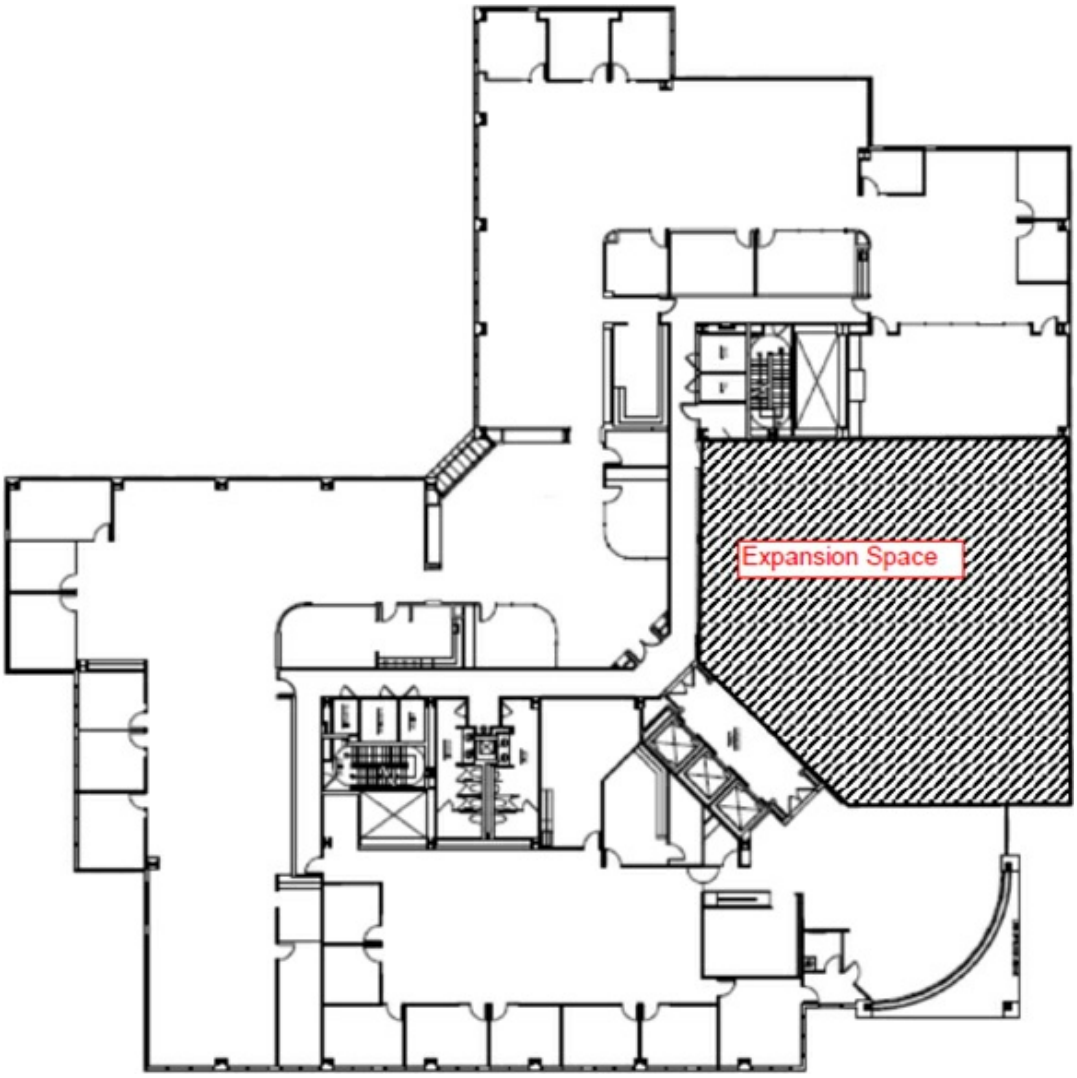
Proposal"). No court, arbitrator, mediator, appraiser or other third party shall have the right to determine the terms and conditions for any lease terms in Landlord's Expansion Proposal. Tenant shall have five (5) business days within which to agree to lease such Expansion Space on the terms set forth in Landlord's Expansion Proposal or to reject such proposal. The failure of Tenant to provide unconditional and irrevocable written notice of acceptance shall be deemed a rejection. If Tenant provides written notice of acceptance of Landlord's Expansion Proposal but makes any change in the terms for the lease of the Expansion Space contained in the Landlord's Expansion Proposal, then it shall be deemed a rejection of Landlord's Expansion Proposal.

3.2 Effect of Non-Acceptance. If Tenant does not accept the offer to lease all of the Expansion Space pursuant to Landlord's Expansion Proposal, Landlord shall be free to lease all or any portion of the Expansion Space to any other party on such terms proposed in Landlord's Expansion Proposal, or on any other terms which may be different than the terms in Landlord's Expansion Proposal, in which case Tenant's First Offer shall automatically lapse and be of no further force and effect, notwithstanding that Landlord may or may not actually lease all or any portion of the Expansion Space to other parties. Tenant acknowledge that Landlord shall have the right to lease portions of the Expansion Space to different parties, but that Tenant's expansion right under Section 3 and its subsections only pertains to all of the Expansion Space.

3.3 Election to Expand. If Tenant accepts Landlord Expansion Proposal as provided above, then the parties shall enter into an amendment of the Lease to include such Expansion Space on the terms set forth in Landlord's Proposal Notice within fifteen (15) days after Landlord's receipt of Tenant's acceptance; however, the failure of Tenant to execute such amendment within said time period shall not relieve Tenant of its obligation to lease the Expansion Space on the terms set forth in Landlord's Proposal Notice.

3.4 Personal Option. The Right of First Offer to lease the Expansion Space is personal to the original Tenant signing the Lease and any successor pursuant to a Permitted Transfer, but may not be assigned or transferred to or exercised by any assignee, sublessee or transferee under a Transfer.

SCHEDULE 1 TO EXHIBIT F
EXPANSION SPACE



The above floor plan illustrates the second floor of the Building

EXHIBIT G – GUARANTY OF LEASE

This Guaranty of Lease is made by Patient Services, Inc., a Virginia corporation ("**Guarantor**") for the benefit of DWF III Gateway, LLC, a Delaware limited liability company ("**Landlord**"), and its successors and assigns, with respect to the following facts:

A. Landlord and Accesia, Inc., a Virginia corporation (the "**Tenant**"), entered into that certain Office Lease dated as of November 13, 2012 (the "**Lease**") for the lease by Tenant of space located at 701 Gateway Boulevard, Suite 200, South San Francisco, California, California, as more particularly described in the Lease.

B. As a material inducement for Landlord to enter into the Lease with Tenant, Guarantor has agreed to provide this Guaranty of Lease to Landlord.

NOW, THEREFORE, for in consideration of the foregoing and the mutual covenants hereinafter contained, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

1. Guaranty. Guarantor hereby unconditionally and without limitation guarantees payment and performance by Tenant of its obligations under the Lease following notice and any applicable cure period. Guarantor hereby covenants and agrees with Landlord, notwithstanding any modification or alteration of the Lease, (i) to make the due and punctual payment of all rent, additional rent, reimbursements, late charges, interest and other sums and charges expressed to be payable under the Lease during the term thereof and all renewals thereof, (ii) to effect prompt and complete performance of each and every term, covenant, condition and provision in the Lease on the part of Tenant to be kept, observed and performed during the period of the term and any renewals thereof; and (iii) to protect, defend, indemnify and save harmless Landlord from any loss, costs or damages (including legal fees and expenses for counsel of Landlord's choice) arising out of any failure to pay the aforesaid rent, monies, charges or indebtedness or the failure to perform any of the terms, covenants, conditions and provisions in the Lease or this Guaranty of Lease. Guarantor hereby acknowledges that it has a copy of and is familiar with each and every document executed and delivered to Landlord by Tenant including, without limitation, the Lease.

2. Rights. In the event of any breach, default or failure of Tenant to pay any sum or perform any obligation under the Lease, Guarantor shall immediately pay to Landlord any and all such amounts as may be due and owing from Tenant to Landlord by reason of Tenant's failure to perform. Landlord shall have the right to enforce this indemnity regardless of the acceptance of additional security from Tenant and regardless of the release or discharge of Tenant by Landlord or by others, or by operation of any law. In addition to the obligations of Guarantor set forth above, Guarantor agrees to pay to Landlord any and all damages and expenses incurred by Landlord as a direct and proximate result of Tenant's failure to perform. Guarantor further agrees to pay to Landlord interest on any and all sums due and owing Landlord, by reason of Tenant's failure to pay same, at the rate per annum provided in the Lease.

3. Waivers. Guarantor hereby expressly waives any right of setoff or compensation against amounts due under this Guaranty of Lease and waives notice of the acceptance of this indemnity and all notice of nonperformance, nonpayment or non-observance on the part of Tenant of the terms, covenants, conditions and provisions of the Lease. In addition, Guarantor hereby waives all rights and defenses to:

(a) All defenses by reason of any disability of Tenant, or based on the termination of Tenant's liability from any cause, or on any statute of limitations respecting obligations accruing under the Lease or this Guaranty of Lease;

(b) Any and all rights it may have now or in the future to require or demand that Landlord pursue any right or remedy Landlord may have against Tenant or any other third party;

(c) Any and all rights it may have to enforce any remedies available to the Landlord now or in the future, against Tenant;

(d) Any and all rights to participate in any security held by Landlord now or in the future;

(e) The right to require Landlord to (i) proceed against Tenant, (ii) proceed against or exhaust any security which Landlord now holds or may hold in the future from Tenant, (iii) pursue any other right or remedy available to Landlord, or (iv) have the property of Tenant first applied to the discharge of any of the obligations under this Guaranty of Lease;

(f) Until all of Tenant's obligations under the Lease to Landlord have been discharged in full, any right of subrogation it now has, or may hereafter have, against Tenant;

(g) Any defense as a surety, including, without limitation, Guarantor waives the benefits of the provisions of sections 2809, 2810, 2819, 2825, 2845, 2846, 2849, and 2850 of the California Civil Code and any similar or analogous statutes of California or any other jurisdiction;

(h) Any duty or obligation of Landlord to disclose to Guarantor any facts Landlord may now or hereafter know about Tenant, regardless or whether Landlord has reason to believe that any such facts materially increase the risk beyond that which Guarantor intends to assume or has reason to believe that such facts are unknown to Guarantor or has a reasonable opportunity to communicate such facts to Guarantor, it being understood and agreed that Guarantor is fully responsible for being and keeping informed of the financial condition of Tenant and of any and all circumstances bearing on the risk of nonperformance of any obligation guaranteed under this Guaranty of Lease; and

(i) Any defense based upon an election of remedies by Landlord, including any election which destroys or impairs any right of subrogation, reimbursement or contribution which Guarantor may have, or any rights or benefits under any provisions of California law in any way qualifying, conditioning or limiting the obligations of Guarantor based on any steps or procedures that Landlord should take before proceeding against Guarantor.

4. Effect of Modifications, Extensions or Alterations of the Lease. Without limiting the generality of the foregoing, the liability of Guarantor under this Guaranty of Lease shall not be deemed to have been waived, released, discharged, impaired or affected by reason of (a) any waiver or failure to enforce any of the obligations of the Tenant under the Lease, or (b) assignment of the Lease, or the subletting of the leased premises by the Tenant (with or without in each case the consent of the Landlord), or (c) the expiration or other termination of the term, or (d) the release or discharge of the Tenant in any receivership, bankruptcy, winding-up or other creditors' proceedings or the rejection, disaffirmance or disclaimer of the Lease by any party in any action or proceeding, and shall continue with respect to the periods prior thereto and thereafter, for and with respect to the term originally contemplated and expressed in the Lease or any renewals or extensions thereof. Guarantor further understands and agrees that the obligations of Guarantor under this Guaranty of Lease shall in no way be affected by any extension, modification or alteration of the Lease, or Tenant's obligation under the Lease and each of its provisions, and any such extension, modification or alteration of the Lease, any and all of which may be done without the prior consent or approval of Guarantor and shall in no way release or discharge Guarantor from any obligations accruing under this Guaranty of Lease. The term "Lease" shall include all amendments, modifications, alterations and extensions of the Lease. The liability of the Guarantor shall not be affected by any repossession of the leased premises by Landlord.

5. Payment and Performance. This Guaranty of Lease shall be one of payment and performance and not of collection.

6. Nature of Guaranty. The liability of any Guarantor hereunder is direct, immediate, absolute, continuing, unconditional, primary and unlimited. Notwithstanding the use of the word "indemnity" or "guaranty" in this Guaranty of Lease and without limiting the foregoing, each Guarantor shall be bound by this Guaranty of Lease in the same manner as though a Guarantor were the Tenant named in the Lease.

7. Successors and Assigns. All of the terms, agreements and conditions of this Guaranty of Lease shall extend to and be binding upon each Guarantor, his heirs, executors, administrators, successors, and assigns, and shall inure to the benefit of and may be enforced by Landlord, its successors and assigns, and the holder of any mortgage to which the Lease may be subject and subordinate from time to time.

8. Assignment by Landlord. Landlord may, without notice, assign this Guaranty of Lease in whole or in part and no assignment or transfer of the Lease shall operate to extinguish or diminish the liability of the any Guarantor hereunder.

9. Subordination. Any indebtedness of the Tenant now or hereafter held by a Guarantor is hereby subordinated to the indebtedness of the Tenant to the Landlord; and any indebtedness of the Tenant to any Guarantor, if the Landlord so requests, shall be collected, enforced and received by Guarantor as trustee for the Landlord on account of the indebtedness of the Tenant to the Landlord without affecting the liability of Guarantor under this Guaranty of Lease.

10. Authority. It is not necessary for the Landlord to inquire into the powers of the Tenant or of the partners or agents acting or purporting to act on its behalf, and any indebtedness made or created in reliance upon the professed exercise of such powers shall be guaranteed hereunder. Guarantor represents and warrants to Landlord that the individual(s) executing this Guaranty of Lease on behalf of Guarantor is duly authorized to execute and deliver this Guaranty of Lease on behalf of such Guarantor in accordance with the governing documents of such Guarantor, and that this Guaranty of Lease is binding upon Guarantor in accordance with its terms.

11. Waiver of Jury Trial. As a further inducement of Landlord to enter into the Lease and in consideration thereof, Landlord and each Guarantor hereby express waive the right to a trial by jury for any action or proceeding brought by either Landlord or any Guarantor against the other on any matter whatsoever arising out of, under, or by virtue of any of the terms, covenants, conditions, provisions or arrangements of the Lease or of this Guaranty of Lease.

12. Bankruptcy. Guarantor shall not, without the prior written consent of Landlord, commence, or join with any other person in commencing, any bankruptcy, reorganization, or insolvency proceeding against Tenant. The obligations of Guarantor under this Guaranty of Lease shall not be altered, limited, or affected by any proceeding, voluntary or involuntary, involving the bankruptcy, insolvency, receivership, reorganization, liquidation, or arrangement of Tenant, or by any defense that Tenant may have by reason of any order, decree, or decision of any court or administrative body resulting from any such proceeding. Guarantor shall file in any bankruptcy or other proceeding in which the filing of claims is required or permitted by law all claims that Guarantor may have against Tenant relating to any indebtedness of Tenant to Guarantor, and shall will assign to Landlord all rights of Guarantor under these claims. Landlord shall have the sole right to accept or reject any plan proposed in such proceeding and to take any other action that a party filing a claim is entitled to take. In all such cases, whether in administration, bankruptcy, or otherwise, the person or persons authorized to pay such claim shall pay to Landlord the amount payable on such claim and, to the full extent necessary for that purpose, each Guarantor assigns to Landlord all of Guarantor's rights to any such payments or distributions to which such Guarantor would otherwise be entitled; provided, however, that Guarantor's obligations under this Guaranty of Lease shall not be satisfied except to the extent that Landlord receives cash by reason of any such payment or distribution. If Landlord receives anything other than cash, the same shall be held as collateral for amounts due under this Guaranty of Lease.

If a claim ("**Claim**") is made on Landlord at any time (whether before or after payment or performance in full of any obligation of Guarantor, and whether such claim is asserted in a bankruptcy proceeding or otherwise) for repayment or recovery of any amount or other value received by Landlord (from any source) in payment of, or on account of, any obligation of Guarantor under this Guaranty of Lease, and if Landlord repays such amount, returns value, or otherwise becomes liable for all or part of such Claim by reason of (a) any judgment, decree, or order of any court or administrative body or (b) any settlement or compromise of such Claim, Guarantor shall remain severally liable to Landlord for the amount so repaid or returned or for which Landlord is liable to the same extent as if such payments or value had never been received by Landlord, despite any termination of this Guaranty of Lease or the termination of the Lease or cancellation of any document evidencing any obligation of any Guarantor under this Guaranty of Lease.

13. Attorneys' Fees and Costs. In the event of any action or proceeding at law or in equity between Landlord and Guarantor (including an action or proceeding between Landlord and the trustee debtor in possession while Guarantor is a debtor in a proceeding under the Bankruptcy Code (Title 11 of the United States Code) or any successor statute to such Code) to enforce any provision of this Guaranty of Lease or to protect or establish any right or remedy of either Landlord or Guarantor hereunder, the unsuccessful party to such action or proceeding shall pay to the prevailing party all costs and expenses, including, without limitation, attorneys' fees and expenses, incurred in such action or proceeding and in any appeal in connection therewith by such prevailing party, whether or not such action, proceeding or appeal is prosecuted to judgment or other final determination, together with all costs of enforcement and/or collection of any judgment or other relief. The term "prevailing party" shall include, without limitation, a party who obtains legal counsel or brings an action against the other by reason of the other's breach or default and obtains substantially the relief sought, whether by compromise, settlement or judgment. If such prevailing party shall recover judgment in any such action, proceeding or appeal, such costs, expenses and attorneys' and paralegals' fees shall be included in and as a part of such judgment, together with all costs of enforcement and/or collection of any judgment or other relief.

Except as provided in Section 13 above, Guarantor hereby agrees to be responsible for and to pay all costs and expenses, including, without limitation, reasonable attorneys' fees and expenses incurred by Landlord in connection with the collection of all sums guarantied hereunder and the defense or enforcement of any of Landlord's rights hereunder, whether or not suit is filed, and whether such collection be from Tenant or from Guarantor.

14. Financial Statements. At any time during the term of the Lease, Guarantor shall, upon ten (10) days' prior written notice from Landlord, provide Landlord with a current financial statement and financial statements of the two (2) years prior to the current financial statement year. Such statements shall be prepared in accordance with generally accepted accounting principles and, if such is the normal practice of Guarantor, shall be audited by an independent certified public accountant. Notwithstanding anything to the contrary contained in this Guaranty, if Guarantor is a publicly traded corporation making annual 10-K filings with the Securities and Exchange Commission, Guarantor may satisfy the requirements of this section with respect to delivery of financial information by delivery of Guarantor's most recent annual report filed with the Securities and Exchange Commission.

15. Miscellaneous. Each provision of this Guaranty of Lease shall be enforceable to the extent not prohibited by law. If any provision or its application to any person or circumstance shall be invalid or unenforceable, the remaining provisions, or the application of such provision to persons or circumstances other than those as to which it is invalid or unenforceable, shall not be affected. This Guaranty of Lease may not be modified or terminated except as expressly provided herein or except by a writing signed by Landlord and a Guarantor. Any such modification or termination made otherwise than as expressly permitted by this paragraph

shall be void. This Guaranty of Lease shall be governed by and interpreted in accordance with the laws of the State of California. Guarantor hereby consents to the jurisdiction of the courts of the State of California. Any dispute arising under or in connection with this Guaranty of Lease shall be litigated exclusively in the applicable court in the County in which the Premises is located, and no action may be brought in any other forum. The term "Landlord" whenever used in this Guaranty of Lease refers to and means the Landlord under the Lease specifically named and also any assignee of said Landlord, whether by outright assignment or by assignment for security, and also any successor to the interest of Landlord or of any assignee of the Lease or any part of the Lease, whether by assignment or otherwise. The term "Tenant" whenever used in this Guaranty of Lease refers to and means Tenant under the Lease and also any assignee of the interest of Tenant in the Lease or any subtenant of all or any part of the Premises and their respective successors in interest.

16. Time of the Essence. Time is strictly of the essence under this Guaranty of Lease and any amendment, modification, or revision of this Guaranty of Lease.

17. Cumulative Rights and Remedies. The extent of a Guarantor's liability and all rights, powers and remedies of Landlord hereunder shall be cumulative and not alternative and such rights, powers and remedies shall be in addition to all rights, powers and remedies given to Landlord by law.

18. Joint and Several. If there is more than one party, person or entity executing this Guaranty of Lease of Lease, the obligations of each Guarantor shall be joint and several and are independent of Tenant's obligations. A separate action may be brought or prosecuted against any Guarantor whether the action is brought or prosecuted against any other Guarantor or Tenant, or all, or whether any other Guarantor or Tenant, or all, are joined in the action.

IN WITNESS WHEREOF, this Guaranty of Lease has been executed to be effective as of November 13, 2012.

GUARANTOR: PATIENT SERVICES, INC.,
a Virginia corporation

By: _____
Name: _____
Its: _____

Address: _____
_____

Exhibit 23.2

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the use in this Amendment No. 2 to Registration Statement No. 333-196936 onForm S-1 of our report dated April 9, 2014 (July 10, 2014 as to the effect of the reverse stock split described in the first paragraph of Note 2 and September 26, 2014 as to the effect of the adoption of a new accounting standard and removal of development stage company disclosures as described in the Recent Accounting Pronouncements section of Note 2) 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, and as of December 31, 2012 and for the period from August 22, 2012 (inception) to December 31, 2012 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
September 26, 2014