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As filed with the Securities and Exchange Commission on November 3, 2011

Registration No. 333-

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

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

VERASTEM, INC.

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation or organization)	2834 (Primary Standard Industrial Classification Code Number)	27-3269467 (I.R.S. Employer Identification Number)
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215 First Street, Suite 440
Cambridge, MA 02142
(617) 252-9300
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Christoph Westphal, M.D., Ph.D.
Chief Executive Officer
Verastem, Inc.
215 First Street, Suite 440
Cambridge, Massachusetts 02142
(617) 252-9300
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Approximate date of commencement of proposed sale to public: As soon as practicable after this Registration Statement is declared effective.

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 of 1933, 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, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

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

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

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

Large accelerated filer

Accelerated filer

Non-accelerated filer
(Do not check if a
smaller reporting company)

Smaller reporting company

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities

Proposed Maximum

Amount of

To Be Registered	Aggregate Offering Price(1)	Registration Fee(2)
Common Stock, \$0.0001 par value per share	\$50,000,000	\$5,730

- (1) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(o) under the Securities Act of 1933, as amended.
- (2) Calculated pursuant to Rule 457(o) based on an estimate of the proposed maximum aggregate offering price.

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 or until the Registration Statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

The information in this preliminary prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

shares



Common Stock

This is the initial public offering of our common stock. No public market currently exists for our common stock. We are offering all of the shares of common stock offered by this prospectus. We expect the public offering price to be between \$ _____ and \$ _____ per share.

We are applying to list our common stock on The NASDAQ Global Market under the symbol "VSTM."

Investing in our common stock involves a high degree of risk. Before buying any shares, you should carefully read the discussion of material risks of investing in our common stock in "Risk factors" beginning on page 10.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

	Per share	Total
Public offering price	\$ _____	\$ _____
Underwriting discounts and commissions	\$ _____	\$ _____
Proceeds to Verastem, before expenses	\$ _____	\$ _____

The underwriters may also purchase up to an additional _____ shares of our common stock at the public offering price, less the underwriting discounts and commissions payable by us, to cover over-allotments, if any, within 30 days from the date of this prospectus. If the underwriters exercise this option in full, the total underwriting discounts and commissions will be \$ _____ and our total proceeds, after underwriting discounts and commissions but before expenses, will be \$ _____.

The underwriters are offering the common stock as set forth under "Underwriting." Delivery of the shares will be made on or about _____, 2012.

UBS Investment Bank

Leerink Swann

Lazard Capital Markets

Oppenheimer & Co.

Rodman & Renshaw, LLC

We have not authorized anyone to provide any information other than that contained in this prospectus or in any free writing prospectus prepared by or on behalf of us or to which we have referred you. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. We are offering to sell, and seeking offers to buy, shares of our common stock only in jurisdictions where such offers and sales are permitted. The information in this prospectus or any free writing prospectus is accurate only as of its date, regardless of its time of delivery or of any sale of shares of our common stock. Our business, financial condition, results of operations and prospects may have changed since that date.

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Prospectus summary

This summary highlights information contained elsewhere in this prospectus. This summary does not contain all of the information you should consider before investing in our common stock. You should read this entire prospectus carefully, especially the "Risk factors" section and our financial statements and the related notes appearing at the end of this prospectus, before making an investment decision.

OUR BUSINESS

We are a biopharmaceutical company focused on discovering and developing proprietary small molecule drugs targeting cancer stem cells along with proprietary companion diagnostics. A cancer stem cell is a particularly aggressive type of tumor cell, resistant to conventional cancer therapy, that we believe is an underlying cause of tumor recurrence and metastasis. We also believe that the presence of cancer stem cells in tumors may be a key reason for the ultimate failure of many existing chemotherapeutics and other cancer therapies to achieve a durable clinical response. Building on discoveries by our scientific co-founders, Robert Weinberg, Ph.D., Eric Lander, Ph.D., and Piyush Gupta, Ph.D., published in the peer reviewed scientific journal *Cell*, we use our proprietary technology to create a stable population of cancer stem cells to screen for and identify small molecule compounds that target cancer stem cells. We believe that our technology and approach provide an opportunity to develop a next generation of oncology therapeutics addressing the large unmet medical need of patients with many types of cancers.

THE PROBLEM

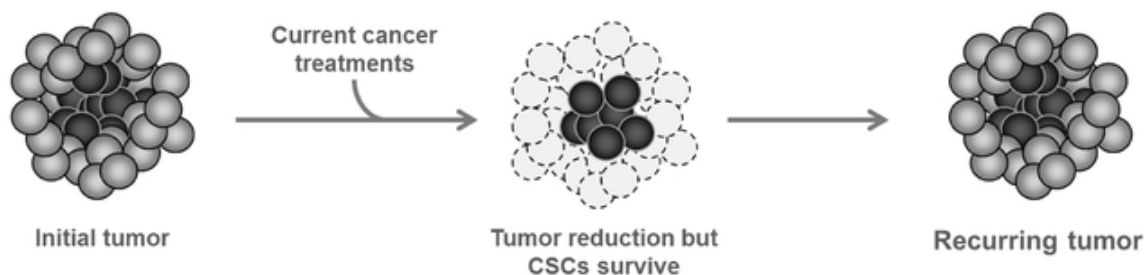
Cancer is one of the world's most serious health problems and the second most common cause of death in the United States after heart disease. Current treatments for cancer include surgery, radiation therapy, chemotherapy, hormone therapy and targeted therapy. According to estimates by the National Institutes of Health, in the United States in 2010, the direct medical costs of cancer of all types exceeded \$100 billion. IMS Health estimates that in the United States in 2010, approximately \$22 billion was spent on drugs to treat cancer, representing the largest class of drug spending in the United States. Despite years of intensive research and clinical use, current treatments often fail to cure cancer. Cancer patients who relapse often develop metastatic disease. Metastatic disease is the cause of more than 90% of cancer deaths.

We believe that cancer stem cells, or CSCs, which are also sometimes referred to as tumor-initiating cancer cells, are responsible for the initiation, metastasis and recurrence of many cancers and may be a key reason for the ultimate failure of many current therapies to achieve a durable clinical response. CSCs have the ability to:

- > move freely and proliferate without attachment to other cells or surfaces;
- > initiate a tumor;
- > self-renew;
- > produce other cancer cell types; and
- > resist many current cancer treatments.

CSCs have been identified in many types of cancer, including breast, pancreatic, colon, brain, lung and leukemia. As illustrated in the figure below, while current treatments may succeed at initially decreasing tumor burden, they may leave behind a population of CSCs that can regenerate tumors.

The problem:

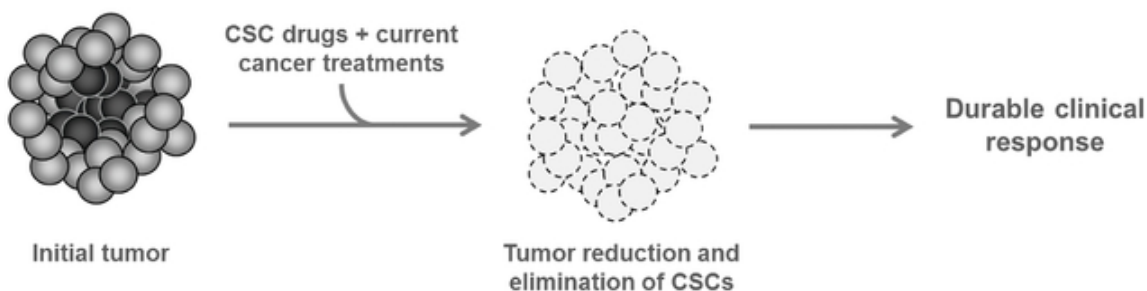


OUR SOLUTION

Our solution is to discover and develop a next generation of oncology therapeutics targeting CSCs along with companion diagnostics. We believe that by developing therapeutics that target CSCs we can address the problem of cancer recurrence and metastasis so as to deliver a durable clinical response.

Our scientific co-founders at the Whitehead Institute for Biomedical Research, an affiliate of the Massachusetts Institute of Technology, or MIT, and the Broad Institute, an affiliate of MIT and Harvard University, made discoveries that link the epithelial-to-mesenchymal transition, or EMT, to the emergence of CSCs. This transition involves the transformation of one type of cancer cell into a more aggressive and drug resistant type of cancer cell. Our solution utilizes proprietary technology based on these discoveries along with rapid and automated assays, referred to as high-throughput screening, to identify drugs targeting CSCs and develop companion diagnostics. To achieve a durable clinical response, we believe that it may be necessary to kill both CSCs and other types of cancer cells in a tumor, as illustrated in the figure below, either with a combination of current cancer treatments and CSC-targeted drugs or a single therapeutic found to target both cancer cell populations.

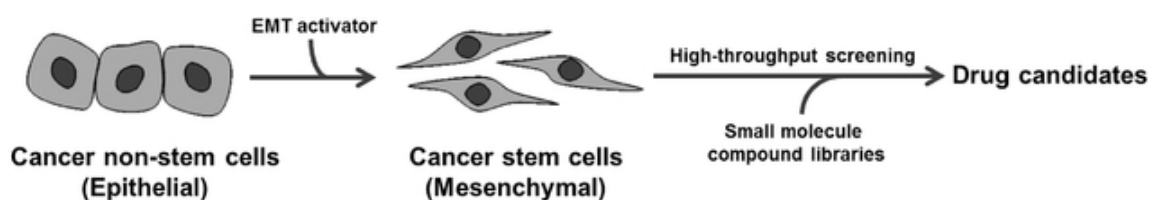
Our goal:



Our proprietary technology

A persistent problem in the discovery of drugs targeting CSCs is the difficulty of isolating large numbers of CSCs. Without such large numbers, the discovery of drugs targeting CSCs using high-throughput screening is extremely difficult. Moreover, when CSCs are isolated, they typically do not remain stable in culture. Instead, over a short period of time, CSCs convert into other types of cancer cells. To address this problem, our scientific co-founders developed proprietary technology based on the EMT process to create a stable population of CSCs that are suitable for use in high-throughput screening of small molecule compounds. We license this proprietary technology from the Whitehead Institute.

To identify compounds that are selective for CSCs, we grow cancer non-stem cells in the laboratory and then induce the EMT process to create a stable population of CSCs. As illustrated in the figure below, we then screen compounds to assess their ability to kill the CSCs. Because these CSCs are stable in culture, the screening process can be conducted using high-throughput technology on a large number and wide variety of small molecule compound libraries. These compound libraries include new chemical entities, approved drugs and compounds that are in preclinical and clinical development. We then profile the compounds that are identified as targeting CSCs using additional assays to identify suitable clinical candidates.



OUR PRODUCT CANDIDATES AND COMPANION DIAGNOSTICS

Using our proprietary technology, we have identified a pipeline of small molecule compounds with the potential to target CSCs. Our most advanced product candidate is the small molecule VS-507. Our scientific co-founders identified VS-507 as a drug candidate for killing breast cancer stem cells and published their research in *Cell* in 2009. This study included an analysis of the effect of VS-507 on cell lines derived from triple negative breast cancer, or TNBC, a type of breast cancer in which a high percentage of CSCs have been identified. TNBC has a poorer prognosis and lower overall survival rate than other types of breast cancers. We are currently evaluating VS-507 in preclinical studies as a potential therapy for breast cancer and believe that VS-507 may be especially beneficial as a therapeutic for the treatment of TNBC.

We believe that the targeted action of VS-507 on CSCs is effected through the inhibition of a network of proteins, known as the Wnt/beta-catenin cell signaling pathway, which Dr. Weinberg described in 2011 in *Cell* as critical for the development and maintenance of CSCs. Additional third-party published research has reported that VS-507's activity may be mediated through the blockade of the Wnt/beta-catenin cell signaling pathway. In mouse models of breast cancer, VS-507 treatment decreased biophysical or biochemical markers, referred to as biomarkers, of CSCs. In contrast, treatment in the same model with a standard chemotherapeutic agent, paclitaxel, increased biomarkers of CSCs. Assuming successful completion of preclinical studies, we expect to file an investigational new drug application, or IND, with the U.S. Food and Drug Administration, or FDA, in late 2012 to initiate a Phase 1 clinical trial of VS-507. We also are currently evaluating additional proprietary product candidates in preclinical studies for their use in breast and other cancers.

An important element of our business strategy is the development and use of proprietary, companion diagnostics in connection with the development of our therapeutic drug candidates. CSCs are often characterized by a distinctive set of biomarkers, which we believe may be a key to identifying patients with tumors that are likely to respond to therapies targeting CSCs. We plan to use diagnostics, based on these biomarkers, as part of a personalized medicine approach to identify patients with aggressive tumors that have a high percentage of CSCs. We also believe that these diagnostics may be used to monitor patients' progress on therapy and aid physicians' ongoing treatment decisions. In addition, we expect that our use of proprietary diagnostics may accelerate the clinical development process for our drug candidates by enabling smaller, targeted trials and providing early, objective signals of drug activity.

OUR STRATEGY

Our goal is to build a leading biopharmaceutical company focused on the discovery, development and, ultimately, commercialization of novel drugs and companion diagnostics targeting CSCs. Key elements of our strategy to achieve this goal are:

- continue to screen and identify small molecules that target CSCs;
- in-license rights to additional compounds to expand our pipeline of candidates that target CSCs;
- rapidly advance our drug candidates into clinical development;
- develop diagnostics for therapeutic products targeting CSCs;
- collaborate selectively to augment and accelerate development and commercialization; and
- maintain scientific leadership in the CSC field.

OUR MANAGEMENT TEAM AND SCIENTIFIC CO-FOUNDERS AND ADVISORS

Our management team includes our Chief Executive Officer, Chairman and co-founder Christoph Westphal, M.D., Ph.D., our Chief Operating Officer, Robert Forrester, and our Vice President, Head of Research, Jonathan Pachter, Ph.D.

- Dr. Westphal has been involved in founding a number of biotechnology companies as chief executive officer, including Sirtris Pharmaceuticals, Inc., which was acquired by GlaxoSmithKline plc in 2008, as well as Alnylam Pharmaceuticals, Inc. and Momenta Pharmaceuticals, Inc. Dr. Westphal also co-founded Alnara Pharmaceuticals, Inc., which was acquired by Eli Lilly and Co. in 2010.
- Mr. Forrester has held executive level positions at both private and public life science companies, including Forma Therapeutics, Inc., CombinatoRx, Inc., now Zalicus Inc., and Coley Pharmaceutical Group, Inc., which was acquired by Pfizer Inc. in 2007.
- Dr. Pachter has over 20 years of experience in leading the discovery of small molecule and monoclonal antibody therapeutics for the treatment of cancer, most recently as the Senior Director of Cancer Biology at OSI Pharmaceuticals Inc., which was acquired by Astellas Pharma Inc. in 2010.

Our management team is supported by our scientific advisory board comprised of leading academic and industry scientists. Our scientific advisory board consists of:

Scientific advisory board

Robert Weinberg, Ph.D. <i>Scientific co-founder</i>	Founding Member of the Whitehead Institute for Biomedical Research, Professor of Biology at the Massachusetts Institute of Technology and recipient of the 1997 National Medal of Science
Eric Lander, Ph.D. <i>Scientific co-founder</i>	Founding Director of the Broad Institute, Professor of Biology at the Massachusetts Institute of Technology and Professor of Systems Biology at Harvard Medical School
Piyush Gupta, Ph.D. <i>Scientific co-founder</i>	Member of the Whitehead Institute for Biomedical Research and Assistant Professor of Biology at the Massachusetts Institute of Technology

Scientific advisory board

Julian Adams, Ph.D.	President of Research and Development of Infinity Pharmaceuticals, Inc., former Senior Vice President of Drug Discovery and Development of Millennium Pharmaceuticals, Inc. and co-inventor and co-developer of Velcade
José Baselga, M.D., Ph.D.	Chief of Hematology and Oncology at Massachusetts General Hospital, Associate Director of the Massachusetts General Hospital Cancer Center and Professor of Medicine at Harvard Medical School
George Daley, M.D., Ph.D.	Professor of Hematology and Oncology and Director of the Stem Cell Transplantation Program at Children's Hospital and Professor of Biological Chemistry and Molecular Pharmacology at Harvard Medical School
Peter Elliott, Ph.D.	Former Senior Vice President and Head of Research and Development of Sirtris Pharmaceuticals, Inc., former Vice President of Pharmacology and Drug Development of Millennium Pharmaceuticals, Inc. and co-developer of Velcade
Daniel Haber, M.D., Ph.D.	Director of the Massachusetts General Hospital Cancer Center and Professor of Medicine at Harvard Medical School
Joseph (Yossi) Schlessinger, Ph.D.	Chairman and Professor in the Department of Pharmacology at Yale School of Medicine
Phillip A. Sharp, Ph.D.	Institute Professor at the David H. Koch Institute for Integrative Cancer Research at the Massachusetts Institute of Technology and recipient of the 1993 Nobel Prize in Medicine and Physiology
Roger Tung, Ph.D.	President and Chief Executive Officer of Concert Pharmaceuticals, Inc., former Vice President of Drug Discovery of Vertex Pharmaceuticals, Inc. and co-inventor of Lexiva and Agenerase
Christopher Walsh, Ph.D.	Hamilton Kuhn Professor in the Department of Biological Chemistry and Molecular Pharmacology at Harvard Medical School
Eric Winer, M.D.	Director of the Breast Oncology Center at the Dana Farber Cancer Institute and Professor of Medicine at Harvard Medical School

RISKS ASSOCIATED WITH OUR BUSINESS

Our business is subject to a number of risks of which you should be aware before making an investment decision. These risks are discussed more fully in the "Risk factors" section of this prospectus immediately following this prospectus summary. These risks include the following:

- We have incurred significant losses since our inception and will need substantial additional funding. To date, we have not generated any revenues. We expect to incur losses for the foreseeable future and may never achieve profitability. Our net loss was \$7.7 million for the nine months ended September 30, 2011 and \$784,000 for the period from August 4, 2010 (inception)

to December 31, 2010. As of September 30, 2011, we had a deficit accumulated during the development stage of \$8.5 million.

- We have a short operating history. All of our product candidates are still in preclinical development, and we have not received marketing approval from the FDA or any other regulatory authority for any product candidate.
- Our approach to the discovery and development of product candidates that target CSCs is unproven. Our focus on using our proprietary EMT technology to screen for and identify product candidates targeting CSCs may not result in the discovery and development of commercially viable drugs to treat cancer. Research on CSCs is an emerging field and, consequently, there is ongoing debate regarding the existence of CSCs, whether the appropriate nomenclature to refer to these cells is cancer stem cells, tumor-initiating cells or another term and the importance of these cells as an underlying cause of tumor recurrence and metastasis. We do not believe that any drugs that target CSCs have been successfully developed to date for the treatment of cancer.
- We may be unable to acquire or in-license from third parties any compounds or product candidates that we identify using our proprietary EMT technology or otherwise.
- Clinical trials of our product candidates may not be successful. If we are unable to obtain required marketing approvals for, commercialize, obtain and maintain patent protection for or gain sufficient market acceptance by physicians, patients and healthcare payors of our product candidates, or experience significant delays in doing so, our business will be materially harmed and our ability to generate revenue will be materially impaired.
- If we are unable to successfully develop companion diagnostics for our therapeutic product candidates, or experience significant delays in doing so, we may not realize the full commercial potential of our therapeutics.
- We may depend on collaborations with third parties for the development and commercialization of our product candidates. If those collaborations are not successful, we may not be able to capitalize on the market potential of these product candidates.

OUR CORPORATE INFORMATION

We were incorporated under the laws of the State of Delaware in August 2010. Our principal executive offices are located at 215 First Street, Suite 440, Cambridge, Massachusetts 02142 and our telephone number is (617) 252-9300. Our website address is www.verastem.com. The information contained on, or that can be accessed through, our website is not a part of this prospectus. We have included our website address in this prospectus solely as an inactive textual reference.

In this prospectus, unless otherwise stated or the context otherwise requires, references to "Verastem," "we," "us," "our" and similar references refer to Verastem, Inc. The Verastem name and logo are our trademarks. The other trademarks, trade names and service marks appearing in this prospectus are the property of their respective owners.

This prospectus includes statistical and other industry and market data that we obtained from industry publications and research, surveys and studies conducted by third parties. Industry publications and third party research, surveys and studies generally indicate that their information has been obtained from sources believed to be reliable, although they do not guarantee the accuracy or completeness of such information. While we believe these industry publications and third party research, surveys and studies are reliable, we have not independently verified such data.

The offering

Common stock offered by us	shares
Common stock to be outstanding after this offering	shares
Over-allotment option	The underwriters have an option for a period of 30 days to purchase up to additional shares of our common stock to cover over-allotments.
Use of proceeds	We intend to use the net proceeds from this offering for preclinical and clinical development of VS-507, discovery, research and preclinical studies of our other product candidates, additional compounds and companion diagnostics and other general corporate purposes.
Risk factors	You should read the "Risk factors" section starting on page 10 of this prospectus for a discussion of factors to consider carefully before deciding to invest in shares of our common stock.
Proposed NASDAQ Global Market symbol	VSTM

The number of shares of our common stock to be outstanding after this offering is based on 10,476,652 actual shares of our common stock outstanding as of September 30, 2011 and 40,959,493 additional shares of our common stock issuable upon the automatic conversion of all outstanding shares of our preferred stock, including shares of our series C preferred stock that we issued and sold in November 2011, upon the closing of this offering.

The number of shares of our common stock to be outstanding after this offering excludes:

- > 1,418,000 shares of our common stock issuable upon the exercise of stock options outstanding as of September 30, 2011 at a weighted-average exercise price of \$0.21 per share;
- > 105,348 additional shares of our common stock available for future issuance as of September 30, 2011 under our 2010 equity incentive plan; and
- > additional shares of our common stock that will be available for future issuance, as of the closing of this offering, under our 2012 stock incentive plan.

Unless otherwise indicated, all information in this prospectus assumes:

- > no exercise of the outstanding options described above;
- > no exercise by the underwriters of their option to purchase up to additional shares of our common stock to cover over-allotments;
- > the automatic conversion of all outstanding shares of our preferred stock into an aggregate of 40,959,493 shares of our common stock upon the closing of this offering; and
- > the restatement of our amended and restated certificate of incorporation and the amendment and restatement of our bylaws upon the closing of this offering.

Summary financial information

You should read the following summary financial data together with our financial statements and the related notes appearing at the end of this prospectus and the "Selected financial data" and "Management's discussion and analysis of financial condition and results of operations" sections of this prospectus. We have derived the statements of operations data for the period from August 4, 2010 (inception) to December 31, 2010 from our audited financial statements included in this prospectus. We have derived the statements of operations data for the nine months ended September 30, 2011 and the period from August 4, 2010 (inception) to September 30, 2011 and the balance sheet data as of September 30, 2011 from our unaudited financial statements included in this prospectus. The unaudited financial data include, in the opinion of our management, all adjustments, consisting only of normal recurring adjustments, that are necessary for a fair presentation of our financial position and results of operations for these periods. Our historical results for any prior period are not necessarily indicative of results to be expected in any future period, and our results for any interim period are not necessarily indicative of results to be expected for a full fiscal year.

Statement of operations data:	Period from August 4, 2010 (inception) to December 31, 2010	Nine months ended September 30, 2011	Period from August 4, 2010 (inception) to September 30, 2011
(in thousands, except per share data)			
Operating expenses:			
Research and development	\$ 400	\$ 5,483	\$ 5,883
General and administrative	384	2,195	2,579
Total operating expenses	784	7,678	8,462
Operating loss	(784)	(7,678)	(8,462)
Net loss	\$ (784)	\$ (7,678)	\$ (8,462)
Accretion of preferred stock	(2)	(18)	(20)
Net loss applicable to common stockholders	\$ (786)	\$ (7,696)	\$ (8,482)
Net loss per share applicable to common stockholders— basic and diluted	\$ (0.26)	\$ (1.79)	\$ (2.20)
Weighted-average number of common shares used in net loss per share applicable to common stockholders—basic and diluted	2,976	4,291	3,841
Pro forma net loss per share applicable to common stockholders—basic and diluted	\$ (0.17)	\$ (0.38)	
Weighted-average number of common shares used in pro forma net loss per share applicable to common stockholders—basic and diluted	4,638	20,474	

Pro forma basic and diluted net loss per common share is calculated assuming the automatic conversion of all outstanding shares of our preferred stock, including shares of our series C preferred stock that we issued and sold in November 2011, into an aggregate of 40,959,493 shares of our common stock upon the closing of this offering.

The pro forma balance sheet data set forth below gives effect to:

- > our issuance and sale in November 2011 of an aggregate of 8,934,493 shares of our series C preferred stock at a price per share of \$2.25 for an aggregate purchase price of \$20.1 million; and
- > the automatic conversion of all outstanding shares of our preferred stock, including shares of our series C preferred stock that we issued and sold in November 2011, into an aggregate of 40,959,493 shares of our common stock upon the closing of this offering.

The pro forma as adjusted balance sheet data set forth below give further effect to our issuance and sale of _____ shares of our common stock in this offering at an assumed initial public offering price of \$ _____ per share, which is the midpoint of the price range listed on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

Balance sheet data:	As of September 30, 2011		
	Actual	Pro forma	Pro forma as adjusted
	(in thousands)		
Cash and cash equivalents	\$ 41,421	\$ 61,524	
Working capital	39,419	59,522	
Total assets	42,364	62,467	
Redeemable convertible preferred stock	47,878	—	
Deficit accumulated during the development stage	(8,462)	(8,462)	
Total stockholders' (deficit) equity	(7,639)	60,342	

Risk factors

Investing in our common stock involves a high degree of risk. Before investing in our common stock, you should consider carefully the risks described below, together with the other information contained in this prospectus, including our financial statements and the related notes appearing at the end of this prospectus. If any of the following risks occur, our business, financial condition, results of operations and future growth prospects could be materially and adversely affected. In these circumstances, the market price of our common stock could decline, and you may lose all or part of your investment.

RISKS RELATED TO OUR FINANCIAL POSITION AND NEED FOR ADDITIONAL CAPITAL

We have incurred significant losses since our inception. We expect to incur losses for the foreseeable future and may never achieve or maintain profitability.

Since inception, we have incurred significant operating losses. Our net loss was \$7.7 million for the nine months ended September 30, 2011 and \$784,000 for the period from August 4, 2010 (inception) to December 31, 2010. As of September 30, 2011, we had a deficit accumulated during the development stage of \$8.5 million. To date, we have not generated any revenues and have financed our operations through private placements of our preferred stock. We have devoted substantially all of our efforts to research and development. We have not initiated clinical development of any product candidates and expect that it will be many years, if ever, before we have a product candidate ready for commercialization. We expect to continue to incur significant expenses and increasing operating losses for the foreseeable future. The net losses we incur may fluctuate significantly from quarter to quarter. We anticipate that our expenses will increase substantially if and as we:

- continue our research and preclinical development of our product candidates;
- seek to identify additional product candidates that target cancer stem cells, or CSCs;
- acquire or in-license other products and technologies;
- initiate clinical trials for our product candidates;
- seek marketing approvals for our product candidates that successfully complete clinical trials;
- ultimately establish a sales, marketing and distribution infrastructure to commercialize any products for which we may obtain marketing approval;
- maintain, expand and protect our intellectual property portfolio;
- hire additional clinical, quality control and scientific personnel; and
- add operational, financial and management information systems and personnel, including personnel to support our product development and planned future commercialization efforts.

To become and remain profitable, we must develop and eventually commercialize a product or products with significant market potential. This will require us to be successful in a range of challenging activities, including completing preclinical testing and clinical trials of our product candidates, obtaining marketing approval for these product candidates and manufacturing, marketing and selling those products for which we may obtain marketing approval. We may never succeed in these activities and, even if we do, may never generate revenues that are significant or large enough to achieve profitability. We are currently only in the preclinical testing stages for our most advanced product candidates and have not yet completed formulation development of our lead product candidate, VS-507. If we do achieve profitability, we may not be able to sustain or increase profitability on a quarterly or annual basis. Our failure to become and remain profitable would

Risk factors

decrease the value of the company and could impair our ability to raise capital, maintain our research and development efforts, expand our business or continue our operations. A decline in the value of our company could also cause you to lose all or part of your investment.

Our short operating history may make it difficult for you to evaluate the success of our business to date and to assess our future viability.

We are an early stage company. We commenced active operations in the second half of 2010. Our operations to date have been limited to organizing and staffing our company, business planning, raising capital, acquiring and developing our technology, identifying potential product candidates and undertaking preclinical studies of our most advanced product candidates. All of our product candidates are still in preclinical development. We have not yet demonstrated our ability to initiate or successfully complete any clinical trials, including large-scale, pivotal clinical trials, obtain marketing approvals, 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 product commercialization. It takes about ten to 15 years to develop one new medicine from the time it is discovered to when it is available for treating patients. Consequently, any predictions you make about our future success or viability may not be as accurate as they could be if we had a longer operating history.

In addition, as a new business, we may encounter unforeseen expenses, difficulties, complications, delays and other known and unknown factors. We will need to transition from a company with a research focus to a company capable of supporting commercial activities. We may not be successful in such a transition.

We will need substantial additional funding. If we are unable to raise capital when needed, we would be forced to delay, reduce or eliminate our product development programs or commercialization efforts.

We expect our expenses to increase in connection with our ongoing activities, particularly as we continue the research and development and later initiate clinical trials of, and seek marketing approval for, our product candidates. In addition, if we obtain marketing approval for any of our product candidates, we expect to incur significant commercialization expenses related to product sales, marketing, manufacturing and distribution. Furthermore, upon the closing of this offering, we expect to incur additional costs associated with operating as a public company. Accordingly, we will need to obtain substantial additional funding in connection with our continuing operations. If we are unable to raise capital when needed or on attractive terms, we would be forced to delay, reduce or eliminate our research and development programs or any future commercialization efforts.

We expect that the net proceeds from this offering, together with our existing cash and cash equivalents, will enable us to fund our operating expenses and capital expenditure requirements for at least . Our future capital requirements will depend on many factors, including:

- the scope, progress, results and costs of compound discovery, preclinical development, laboratory testing and clinical trials for our product candidates;
- the extent to which we acquire or in-license other products and technologies;
- the costs, timing and outcome of regulatory review of our product candidates;
- the costs of future commercialization activities, including product sales, marketing, manufacturing and distribution, for any of our product candidates for which we receive marketing approval;

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- revenue, if any, received from commercial sales of our product candidates, should any of our product candidates receive marketing approval;
- the costs of preparing, filing and prosecuting patent applications, maintaining and enforcing our intellectual property rights and defending intellectual property-related claims; and
- our ability to establish collaborations on favorable terms, if at all.

Identifying potential product candidates and conducting preclinical testing and clinical trials is a time-consuming, expensive and uncertain process that takes years to complete, and we may never generate the necessary data or results required to obtain marketing approval and achieve product sales. In addition, our product candidates, if approved, may not achieve commercial success. Our commercial revenues, if any, will be derived from sales of products that we do not expect to be commercially available for many years, if at all. Accordingly, we will need to continue to rely on additional financing to achieve our business objectives. Adequate additional financing may not be available to us on acceptable terms, or at all.

Raising additional capital may cause dilution to our stockholders, including purchasers of common stock in this offering, restrict our operations or require us to relinquish rights to our technologies or product candidates.

Until such time, if ever, as we can generate substantial product revenues, we expect to finance our cash needs through a combination of equity offerings, debt financings, collaborations, strategic alliances and licensing arrangements. We do not have any committed external source of funds. 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 of these securities may include liquidation or other preferences that adversely affect your rights as a common stockholder. Debt financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends.

If we raise additional funds through collaborations, strategic alliances or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies, future revenue streams, research programs or product candidates or to grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds through equity or debt financings when needed, we may be required to delay, limit, reduce or terminate our product development or future commercialization efforts or grant rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves.

RISKS RELATED TO THE DISCOVERY, DEVELOPMENT AND COMMERCIALIZATION OF OUR PRODUCT CANDIDATES

Our approach to the discovery and development of product candidates that target CSCs is unproven, and we do not know whether we will be able to develop any products of commercial value.

Our scientific approach focuses on using proprietary technology to create a stable population of CSCs in the laboratory that we then use to screen for and identify product candidates targeting these CSCs. Research on CSCs is an emerging field and, consequently, there is ongoing debate regarding the existence of CSCs, whether the appropriate nomenclature to refer to these cells is cancer stem cells, tumor-initiating cells or another term and the importance of these cells as an underlying cause of tumor recurrence and metastasis. In addition, there is some debate in the scientific community regarding the defining characteristics of CSCs and whether CSCs are stem cells or, instead, cancer cells

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with tumor-initiating capabilities. As such, the discovery by our scientific co-founders of the link between the epithelial-to-mesenchymal transition, or EMT, and the emergence of cancer stem cells is not universally accepted.

Even if our beliefs regarding the existence, characteristics and function of CSCs are correct, any drugs that we develop may not effectively target CSCs. We do not believe that any drugs that target CSCs have been successfully developed to date for the treatment of cancer. If we are able to develop a drug that targets CSCs in preclinical studies, we may nonetheless not succeed in demonstrating safety and efficacy of the drug in clinical trials. Our focus on using our proprietary EMT technology to screen for and identify product candidates targeting CSCs may not result in the discovery and development of commercially viable drugs to treat cancer.

We may not be successful in our efforts to identify or discover additional potential product candidates.

A key element of our strategy is to identify and test additional compounds that target CSCs in a variety of different types of cancer. A significant portion of the research that we are conducting involves new compounds, new uses of existing compounds and new and unproven drug discovery methods, including our proprietary technology. The drug discovery that we are conducting using our EMT technology may not be successful in identifying compounds that are useful in treating cancer. Our research programs may initially show promise in identifying potential product candidates, yet fail to yield product candidates for clinical development for a number of reasons, including:

- the research methodology used may not be successful in identifying potential product candidates; or
- potential product candidates may, on further study, be shown to have harmful side effects or other characteristics that indicate that they are unlikely to be products that will receive marketing approval and achieve market acceptance.

In particular, because our EMT technology induces the EMT process to create a stable population of CSCs, it is possible that these stable CSCs may not react in precisely the same manner as naturally occurring CSCs when treated with a particular product candidate. As a result, a product candidate that shows initial promise in targeting our stable population of CSCs may not have the same effect on tumors with naturally occurring CSCs.

Research programs to identify new product candidates require substantial technical, financial and human resources. We may choose to focus our efforts and resources on a potential product candidate that ultimately proves to be unsuccessful.

If we are unable to identify suitable compounds for preclinical and clinical development, we will not be able to obtain product revenues in future periods, which likely would result in significant harm to our financial position and adversely impact our stock price.

We may not be successful in obtaining necessary rights to compounds and product candidates for our development pipeline through acquisitions and in-licenses.

Because we are screening a range of compounds, including compounds with proprietary rights held by third parties, for their activity against CSCs, the growth of our business will depend in significant part on our ability to acquire or in-license rights to these compounds. However, we may be unable to acquire or in-license any compounds or product candidates from third parties that we identify using our proprietary EMT technology or otherwise. The licensing and acquisition of proprietary compounds is a competitive area, and a number of more established companies are also pursuing strategies to

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license or acquire compounds and product candidates that we may consider attractive. These established companies may have a competitive advantage over us due to their size, cash resources and greater clinical development and commercialization capabilities.

For example, although the Broad Institute has granted us a right of first negotiation for specified compounds and other intellectual property owned by the Broad Institute, we may be unable to negotiate a license within the specified time frame. If we are unable to do so, the Broad Institute may offer the intellectual property to other parties. In addition, the Whitehead Institute has retained the right to use the EMT technology that we license from it for research, teaching and educational purposes and could seek to license to third parties any intellectual property rights that it discovers using the EMT technology while pursuing these purposes. Pursuant to our license agreement with the Whitehead Institute, we will have an opportunity, subject to the Whitehead Institute's obligations under any third-party research funding agreements, to negotiate a license to any such intellectual property that is developed or conceived on or prior to a specified date in Robert Weinberg's laboratory at the Whitehead Institute. Our failure to reach an agreement with either the Broad Institute or the Whitehead Institute for any applicable intellectual property could result in a third party acquiring the related rights.

In addition, companies that perceive us to be a competitor may be unwilling to assign or license rights to us. We also may be unable to license or acquire the relevant compound or product candidate on terms that would allow us to make an appropriate return on our investment.

In addition, we expect competition for acquisition and in-licensing product candidates that are attractive to us may increase in the future, especially if our approach of targeting CSCs gains greater scientific acceptance, which may mean fewer suitable opportunities for us as well as higher acquisition or licensing prices. If we are unable to successfully obtain rights to suitable compounds or product candidates, our business, financial condition and prospects for growth could suffer.

All of our product candidates are still in preclinical development. Preclinical testing and clinical trials of our product candidates may not be successful. If we are unable to commercialize our product candidates or experience significant delays in doing so, our business will be materially harmed.

We have invested a significant portion of our efforts and financial resources in the identification and preclinical development of drugs that target CSCs. Our ability to generate product 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:

- successful completion of preclinical studies and clinical trials;
- receipt of marketing approvals from applicable regulatory authorities;
- establishing commercial manufacturing capabilities or making arrangements with third-party manufacturers;
- obtaining and maintaining patent and trade secret protection and regulatory exclusivity for our product candidates;
- launching commercial sales of the products, if and when approved, whether alone or in collaboration with others;

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- acceptance of the products, if and when approved, by patients, the medical community and third-party payors;
- effectively competing with other therapies; and
- a continued acceptable safety profile of the products following approval.

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 commercialize our product candidates, which would materially harm our business.

If clinical trials of our product candidates fail to demonstrate safety and efficacy to the satisfaction of regulatory authorities or do not otherwise produce positive results, we may incur additional costs or experience delays in completing, or ultimately be unable to complete, the development and commercialization of our product candidates.

Before obtaining marketing approval from regulatory authorities for the sale of our product candidates, we must complete preclinical development and then conduct extensive clinical trials to demonstrate the safety and efficacy of our product candidates in humans. Clinical testing is expensive, difficult to design and implement, can take many years to complete and is uncertain as to outcome. A failure of one or more clinical trials can occur at any stage of testing. The outcome of preclinical testing and early clinical trials may not be predictive of the success of later clinical trials, and interim results of a clinical trial do not necessarily predict final results. Moreover, preclinical and clinical data are often susceptible to varying interpretations and analyses, and many companies that have believed their product candidates performed satisfactorily in preclinical studies and clinical trials have nonetheless failed to obtain marketing approval of their products. For example, standard measures of clinical activity with respect to solid tumors, such as Response Criteria in Solid Tumors, or RECIST, measurement guidelines, which are based on gross changes in the size of tumor lesions, may not be sufficient to detect the targeting of CSCs by our product candidates.

We may experience numerous unforeseen events during, or as a result of, clinical trials that could delay or prevent our ability to receive marketing approval or commercialize our product candidates, including:

- regulators or institutional review boards may not authorize us or our investigators to commence a clinical trial or conduct a clinical trial at a prospective trial site;
- we may have delays in reaching or fail to reach agreement on acceptable clinical trial contracts or clinical trial protocols with prospective trial sites;
- clinical trials of our product candidates may produce negative or inconclusive results, and we may decide, or regulators may require us, to conduct additional clinical trials or abandon product development programs;
- the number of patients required for clinical trials of our product candidates may be larger than we anticipate, enrollment in these clinical trials may be slower than we anticipate or participants may drop out of these clinical trials at a higher rate than we anticipate;
- our third-party contractors may fail to comply with regulatory requirements or meet their contractual obligations to us in a timely manner, or at all;
- we might have to suspend or terminate clinical trials of our product candidates for various reasons, including a finding that the participants are being exposed to unacceptable health risks;

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- regulators or institutional review boards may require that we or our investigators suspend or terminate clinical research for various reasons, including noncompliance with regulatory requirements or a finding that the participants are being exposed to unacceptable health risks;
- the cost of clinical trials of our product candidates may be greater than we anticipate;
- the supply or quality of our product candidates or other materials necessary to conduct clinical trials of our product candidates may be insufficient or inadequate; and
- our product candidates may have undesirable side effects or other unexpected characteristics, causing us or our investigators, regulators or institutional review boards to suspend or terminate the trials.

If we are required to conduct additional clinical trials or other testing of our product candidates beyond those that we currently contemplate, if we are unable to successfully complete clinical trials of our product candidates or other testing, if the results of these trials or tests are not positive or are only modestly positive or if there are safety concerns, we may:

- be delayed in obtaining marketing approval for our product candidates;
- not obtain marketing approval at all;
- obtain approval for indications or patient populations that are not as broad as intended or desired;
- obtain approval with labeling that includes significant use or distribution restrictions or safety warnings, including boxed warnings;
- be subject to additional post-marketing testing requirements; or
- have the product removed from the market after obtaining marketing approval.

Our product development costs will also increase if we experience delays in testing or marketing approvals. We do not know whether any clinical trials will begin as planned, will need to be restructured or will be completed on schedule, or at all. Significant clinical trial delays also could shorten any periods during which we may have the exclusive right to commercialize our product candidates or allow our competitors to bring products to market before we do and impair our ability to successfully commercialize our product candidates and may harm our business and results of operations.

If we experience delays or difficulties in the enrollment of patients in clinical trials, our receipt of necessary regulatory approvals could be delayed or prevented.

We may not be able to initiate or continue clinical trials for our product candidates if we are unable to locate and enroll a sufficient number of eligible patients to participate in these trials as required by the U.S. Food and Drug Administration, or FDA, or similar regulatory authorities outside the United States. In addition, many of our competitors have ongoing clinical trials for product candidates that treat the same indications as our product candidates, and patients who would otherwise be eligible for our clinical trials may instead enroll in clinical trials of our competitors' product candidates.

Patient enrollment is affected by other factors including:

- severity of the disease under investigation;
- eligibility criteria for the study in question;
- perceived risks and benefits of the product candidate under study;

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- efforts to facilitate timely enrollment in clinical trials;
- patient referral practices of physicians;
- the ability to monitor patients adequately during and after treatment; and
- proximity and availability of clinical trial sites for prospective patients.

Our inability to enroll a sufficient number of patients for our clinical trials would result in significant delays or may require us to abandon one or more clinical trials altogether. Enrollment delays in our clinical trials may result in increased development costs for our product candidates, which would cause the value of our company to decline and limit our ability to obtain additional financing.

If serious adverse or inappropriate side effects are identified during the development of our product candidates, we may need to abandon or limit our development of some of our product candidates.

All of our product candidates are still in preclinical development and their risk of failure is high. It is impossible to predict when or if any of our product candidates will prove effective or safe in humans or will receive marketing approval. If our product candidates are associated with undesirable side effects or have characteristics that are unexpected, we may need to abandon their development or limit development to certain uses or subpopulations in which the undesirable side effects or other characteristics are less prevalent, less severe or more acceptable from a risk-benefit perspective. Many compounds that initially showed promise in early stage testing for treating cancer have later been found to cause side effects that prevented further development of the compound.

We may expend our limited resources to pursue a particular product candidate or indication and fail to capitalize on product candidates or indications that may be more profitable or for which there is a greater likelihood of success.

Because we have limited financial and managerial resources, we focus on research programs and product candidates that we identify for specific indications. As a result, we may forego or delay pursuit of opportunities with other product candidates or for other indications that later prove to have greater commercial potential. Our resource allocation decisions may cause us to fail to capitalize on viable commercial products or profitable market opportunities. Our spending on current and future research and development programs and product candidates for specific indications may not yield any commercially viable products. If we do not accurately evaluate the commercial potential or target market for a particular product candidate, we may relinquish valuable rights to that product candidate through collaboration, licensing or other royalty arrangements in cases in which it would have been more advantageous for us to retain sole development and commercialization rights to such product candidate.

If we are unable to successfully develop companion diagnostics for our therapeutic product candidates, or experience significant delays in doing so, we may not realize the full commercial potential of our therapeutics.

We plan to develop companion diagnostics for our therapeutic product candidates. There has been limited success to date industry wide in developing these types of companion diagnostics. To be successful, we would need to address a number of scientific, technical and logistical challenges. We have only recently initiated development of companion diagnostics. We have limited experience in the development of diagnostics and may not be successful in developing appropriate diagnostics to pair with any of our therapeutic product candidates that receive marketing approval. Companion

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diagnostics are subject to regulation by the FDA and similar regulatory authorities outside the United States as medical devices and require separate regulatory approval prior to commercialization. Given our limited experience in developing diagnostics, we expect to rely in part on third parties for their design and manufacture. If we, or any third parties that we engage to assist us, are unable to successfully develop companion diagnostics for our therapeutic product candidates, or experience delays in doing so:

- the development of our therapeutic product candidates may be adversely affected if we are unable to appropriately select patients for enrollment in our clinical trials;
- our therapeutic product candidates may not receive marketing approval if safe and effective use of a therapeutic product candidate depends on an *in vitro* diagnostic; and
- we may not realize the full commercial potential of any therapeutics that receive marketing approval if, among other reasons, we are unable to appropriately select patients who are likely to benefit from therapy with our drugs.

As a result, our business would be harmed, possibly materially.

Even if any of our product candidates receive marketing approval, they may fail to achieve the degree of market acceptance by physicians, patients, healthcare payors and others in the medical community necessary for commercial success.

If any of our product candidates receive marketing approval, they may nonetheless fail to gain sufficient market acceptance by physicians, patients, healthcare payors and others in the medical community. For example, current cancer treatments like chemotherapy and radiation therapy are well established in the medical community, and doctors may continue to rely on these treatments. If our product candidates do not achieve an adequate level of acceptance, we may not generate significant product revenues and we may not become profitable. The degree of market acceptance of our product candidates, if approved for commercial sale, will depend on a number of factors, including:

- efficacy and potential advantages compared to alternative treatments;
- the ability to offer our products for sale at competitive prices;
- convenience and ease of administration compared to alternative treatments;
- the willingness of the target patient population to try new therapies and of physicians to prescribe these therapies;
- the strength of marketing and distribution support;
- sufficient third-party coverage or reimbursement; and
- the prevalence and severity of any side effects.

If, in the future, we are unable to establish sales and marketing capabilities or enter into agreements with third parties to sell and market our product candidates, we may not be successful in commercializing our product candidates if and when they are approved.

We do not have a sales or marketing infrastructure and have no experience in the sale, marketing or distribution of pharmaceutical products. To achieve commercial success for any approved product, we must either develop a sales and marketing organization or outsource these functions to third parties. In

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the future, we may choose to build a focused sales and marketing infrastructure to market or co-promote some of our product candidates if and when they are approved.

There are risks involved with both establishing our own sales and marketing capabilities and entering into arrangements with third parties to perform these services. For example, recruiting and training a sales force is expensive and time consuming and could delay any product launch. If the commercial launch of a product candidate for which we recruit a sales force and establish marketing capabilities is delayed or does not occur for any reason, we would have prematurely or unnecessarily incurred these commercialization expenses. This may be costly, and our investment would be lost if we cannot retain or reposition our sales and marketing personnel.

Factors that may inhibit our efforts to commercialize our products on our own include:

- our inability to recruit and retain adequate numbers of effective sales and marketing personnel;
- the inability of sales personnel to obtain access to physicians or persuade adequate numbers of physicians to prescribe any future products;
- the lack of complementary products to be offered by sales personnel, which may put us at a competitive disadvantage relative to companies with more extensive product lines; and
- unforeseen costs and expenses associated with creating an independent sales and marketing organization.

If we enter into arrangements with third parties to perform sales, marketing and distribution services, our product revenues or the profitability of these product revenues to us are likely to be lower than if we were to market and sell any products that we develop ourselves. In addition, we may not be successful in entering into arrangements with third parties to sell and market our product candidates or may be unable to do so on terms that are favorable to us. We likely will have little control over such third parties, and any of them may fail to devote the necessary resources and attention to sell and market our products effectively. If we do not establish sales and marketing capabilities successfully, either on our own or in collaboration with third parties, we will not be successful in commercializing our product candidates.

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

The development and commercialization of new drug products is highly competitive. We face competition with respect to our current product candidates, and will face competition with respect to any product candidates that we may seek to develop or commercialize in the future, from major pharmaceutical companies, specialty pharmaceutical companies and biotechnology companies worldwide. There are a number of large pharmaceutical and biotechnology companies that currently market and sell products or are pursuing the development of products for the treatment of the disease indications for which we are developing our product candidates. Some of these competitive products and therapies are based on scientific approaches that are the same as or similar to our approach, and others are based on entirely different approaches. Potential competitors also include academic institutions, government agencies and other public and private research organizations that conduct research, seek patent protection and establish collaborative arrangements for research, development, manufacturing and commercialization.

We are developing our product candidates for the treatment of cancer. There are a variety of available therapies marketed for cancer. In many cases, these drugs are administered in combination to enhance efficacy. Some of these drugs are branded and subject to patent protection, and others are available on

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a generic basis. Many of these approved drugs are well established therapies and are widely accepted by physicians, patients and third-party payors. Insurers and other third-party payors may also encourage the use of generic products. We expect that if our product candidates are approved, they will be priced at a significant premium over competitive generic products. This may make it difficult for us to achieve our business strategy of using our product candidates in combination with existing therapies or replacing existing therapies with our product candidates.

There are also a number of products in clinical development by third parties to treat cancer by targeting CSCs. These companies include divisions of large pharmaceutical companies, including Astellas Pharma US, Inc., Sanofi-Aventis US LLC, GlaxoSmithKline plc and others. There are also biotechnology companies of various size that are developing therapies against CSCs, including OncoMed Pharmaceuticals, Inc., Boston Biomedical, Inc. and Stemline Therapeutics, Inc. Our competitors may develop products that are more effective, safer, more convenient or less costly than any that we are developing or that would render our product candidates obsolete or non-competitive. In addition, our competitors may discover biomarkers that more efficiently measure CSCs than our methods, which may give them a competitive advantage in developing potential products. Our competitors may also obtain marketing approval from the FDA or other regulatory authorities for their products more rapidly than we may obtain approval for ours, which could result in our competitors establishing a strong market position before we are able to enter the market.

Many of our competitors have significantly greater financial resources and expertise in research and development, manufacturing, preclinical testing, conducting clinical trials, obtaining regulatory approvals and marketing approved products than we do. 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 and management personnel, establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies complementary to, or necessary for, our programs.

Even if we are able to commercialize any product candidates, the products may become subject to unfavorable pricing regulations, third-party reimbursement practices or healthcare reform initiatives, which would harm our business.

The regulations that govern marketing approvals, pricing and reimbursement for new drug products vary widely from country to country. In the United States, recently passed legislation may significantly change the approval requirements in ways that could involve additional costs and cause delays in obtaining approvals. Some countries require approval of the sale price of a drug before it can be marketed. In many countries, the pricing review period begins after marketing or product licensing approval is granted. In some foreign markets, prescription pharmaceutical pricing remains subject to continuing governmental control even after initial approval is granted. As a result, we might obtain marketing approval for a product in a particular country, but then be subject to price regulations that delay our commercial launch of the product, possibly for lengthy time periods, and negatively impact the revenues we are able to generate from the sale of the product in that country. Adverse pricing limitations may hinder our ability to recoup our investment in one or more product candidates, even if our product candidates obtain marketing approval.

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Our ability to commercialize any products successfully also will depend in part on the extent to which 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, decide which medications they will pay for and establish reimbursement levels. A primary trend in the U.S. healthcare industry and elsewhere 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. We cannot be sure that reimbursement will be available for any product that we commercialize and, if reimbursement is available, the level of reimbursement. Reimbursement may impact the demand for, or the price of, any product candidate for which we obtain marketing approval. Obtaining reimbursement for our products may be particularly difficult because of the higher prices often associated with drugs administered under the supervision of a physician. If reimbursement is not available or is available only to limited levels, we may not be able to successfully commercialize any product candidate for which we obtain marketing approval.

There may be significant delays in obtaining reimbursement for newly approved drugs, and coverage may be more limited than the purposes for which the drug is approved by the FDA or similar regulatory authorities outside the United States. Moreover, eligibility for 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 not be made permanent. 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 often rely upon Medicare coverage policy and payment limitations in setting their own reimbursement policies. Our inability to promptly obtain coverage and profitable payment 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.

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. If we cannot successfully defend ourselves against claims that our product candidates or products caused injuries, we will 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;
- 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 participants or patients;

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- loss of revenue; and
- the inability to commercialize any products that we may develop.

We currently hold \$3.0 million in product liability insurance coverage, which may not be adequate to cover all liabilities that we may incur. We may need to increase our insurance coverage when we begin clinical trials or the commercialization of our product candidates, if ever. 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.

If we 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 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 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, 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, hazardous or radioactive 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.

RISKS RELATED TO OUR DEPENDENCE ON THIRD PARTIES

We expect to depend on collaborations with third parties for the development and commercialization of our product candidates. If those collaborations are not successful, we may not be able to capitalize on the market potential of these product candidates.

We may seek third-party collaborators for the development and commercialization of our product candidates. Our likely collaborators for any collaboration arrangements include large and mid-size pharmaceutical companies, regional and national pharmaceutical companies and biotechnology companies. If we do enter into any such arrangements with any third parties, we will likely have limited control over the amount and timing of resources that our collaborators dedicate to the development or commercialization of our product candidates. Our ability to generate revenues from these arrangements will depend on our collaborators' abilities to successfully perform the functions assigned to them in these arrangements.

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Collaborations involving our product candidates would pose the following risks to us:

- collaborators have significant discretion in determining the efforts and resources that they will apply to these collaborations;
- collaborators may not pursue development and commercialization of our product candidates or may elect not to continue or renew development or commercialization programs based on clinical trial results, changes in the collaborator's strategic focus or available funding or external factors such as an acquisition that diverts resources or creates competing priorities;
- collaborators may delay clinical trials, provide insufficient funding for a clinical trial program, stop a clinical trial or abandon a product candidate, repeat or conduct new clinical trials or require a new formulation of a product candidate for clinical testing;
- collaborators could independently develop, or develop with third parties, products that compete directly or indirectly with our products or product candidates if the collaborators believe that competitive products are more likely to be successfully developed or can be commercialized under terms that are more economically attractive than ours;
- a collaborator with marketing and distribution rights to one or more products may not commit sufficient resources to the marketing and distribution of such product or products;
- collaborators may not properly maintain or defend our intellectual property rights or may use our proprietary information in such a way as to invite litigation that could jeopardize or invalidate our proprietary information or expose us to potential litigation;
- disputes may arise between the collaborators and us that result in the delay or termination of the research, development or commercialization of our products or product candidates or that result in costly litigation or arbitration that diverts management attention and resources; and
- collaborations may be terminated and, if terminated, may result in a need for additional capital to pursue further development or commercialization of the applicable product candidates.

Collaboration agreements may not lead to development or commercialization of product candidates in the most efficient manner or at all. If a present or future collaborator of ours were to be involved in a business combination, the continued pursuit and emphasis on our product development or commercialization program could be delayed, diminished or terminated.

If we are not able to establish collaborations, we may have to alter our development and commercialization plans.

Our drug development programs and the potential commercialization of our product candidates will require substantial additional cash to fund expenses. For some of our product candidates, we may decide to collaborate with pharmaceutical and biotechnology companies for the development and potential commercialization of those product candidates.

We face significant competition in seeking appropriate collaborators. Whether we reach a definitive agreement for a collaboration will depend, among other things, upon our assessment of the collaborator's resources and expertise, the terms and conditions of the proposed collaboration and the proposed collaborator's evaluation of a number of factors. Those factors may include the design or results of clinical trials, the likelihood of approval by the FDA or similar regulatory authorities outside the United States, the potential market for the subject product candidate, the costs and complexities of manufacturing and delivering such product candidate to patients, the potential of competing products, the existence of uncertainty with respect to our ownership of technology, which can exist if there is a

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challenge to such ownership without regard to the merits of the challenge and industry and market conditions generally. The collaborator may also consider alternative product candidates or technologies for similar indications that may be available to collaborate on and whether such a collaboration could be more attractive than the one with us for our product candidate. We may also be restricted under existing license agreements from entering into agreements on certain terms with potential collaborators. Collaborations are complex and time-consuming to negotiate and document. In addition, there have been a significant number of recent business combinations among large pharmaceutical companies that have resulted in a reduced number of potential future collaborators.

We may not be able to negotiate collaborations on a timely basis, on acceptable terms, or at all. If we are unable to do so, we may have to curtail the development of such product candidate, reduce or delay its development program or one or more of our other development programs, delay its potential commercialization or reduce the scope of any sales or marketing activities, or increase our expenditures and undertake development or commercialization activities at our own expense. If we elect to increase our expenditures to fund development or commercialization activities on our own, we may need to obtain additional capital, which may not be available to us on acceptable terms or at all. If we do not have sufficient funds, we may not be able to further develop our product candidates or bring them to market and generate product revenue.

We expect to rely on third parties to conduct our clinical trials and some aspects of our compound formulation research and preclinical testing, and those third parties may not perform satisfactorily, including failing to meet deadlines for the completion of such trials, research or testing.

We do not plan to independently conduct clinical trials of our product candidates. In addition, we do not expect to independently conduct all aspects of our compound formulation research or preclinical testing of our product candidates. We expect to rely on third parties, such as contract research organizations, clinical data management organizations, medical institutions and clinical investigators, to conduct our clinical trials. We currently rely and expect to continue to rely on third parties to conduct some aspects of our compound formulation research and preclinical testing. For example, we currently rely on third parties in the development of various formulations of VS-507. We cannot finish preclinical testing and initiate clinical trials of VS-507 until the development of a formulation is complete. Any of these third parties may terminate their engagements with us at any time. If we need to enter into alternative arrangements, it would delay our product development activities.

Our reliance on these third parties for research and development activities will reduce our control over these activities but will not relieve us of our responsibilities. For example, we will remain responsible for ensuring that each of our clinical trials is conducted in accordance with the general investigational plan and protocols for the trial. Moreover, the FDA requires us to comply with standards, commonly referred to as Good Clinical Practices, for conducting, recording and reporting the results of clinical trials to assure that data and reported results are credible and accurate and that the rights, integrity and confidentiality of trial participants are protected. We also are required to register ongoing clinical trials and post the results of completed clinical trials on a government-sponsored database, ClinicalTrials.gov, within certain timeframes. Failure to do so can result in fines, adverse publicity and civil and criminal sanctions.

Furthermore, these third parties may also have relationships with other entities, some of which may be our competitors. If these third parties do not successfully carry out their contractual duties, meet expected deadlines or conduct our clinical trials in accordance with regulatory requirements or our stated protocols, we will not be able to obtain, or may be delayed in obtaining, marketing approvals

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for our product candidates and will not be able to, or may be delayed in our efforts to, successfully commercialize our product candidates.

We also expect to rely on other third parties to store and distribute drug supplies for our clinical trials. Any performance failure on the part of our distributors could delay clinical development or marketing approval of our product candidates or commercialization of our products, producing additional losses and depriving us of potential product revenue.

We contract with third parties for the manufacture of our product candidates for preclinical testing and expect to continue to do so for clinical trials and for commercialization. This reliance on third parties increases the risk that we will not have sufficient quantities of our product candidates or products or such quantities at an acceptable cost, which could delay, prevent or impair our development or commercialization efforts.

We do not have any manufacturing facilities or personnel. We currently rely, and expect to continue to rely, on third-party manufacturers for the manufacture of our product candidates for preclinical testing, other than small amounts of compounds that we may synthesize ourselves for such purpose. To date, we have obtained starting materials for our supply of the cGMP bulk drug substance for our product candidates from one third-party manufacturer. We do not have a long term supply agreement with this third-party manufacturer, and we purchase our required drug supply on a purchase order basis.

We expect to rely on third-party manufacturers or third-party collaborators for the manufacture of our product candidates for clinical trials and for commercial supply of any of these product candidates for which we or our collaborators obtain marketing approval. We may be unable to establish any agreements with third-party manufacturers or to do so on acceptable terms. Even if we are able to establish agreements with third-party manufacturers, reliance on third-party manufacturers entails additional risks, including:

- reliance on the third party for regulatory compliance and quality assurance;
- the possible breach of the manufacturing agreement by the third party; and
- the possible termination or nonrenewal of the agreement by the third party at a time that is costly or inconvenient for us.

Third-party manufacturers may not be able to comply with current good manufacturing practices, or cGMP, regulations or similar regulatory requirements outside the United States. Our failure, or the failure of our third-party manufacturers, to comply with applicable regulations could result in sanctions being imposed on us, including fines, injunctions, civil penalties, delays, suspension or withdrawal of approvals, license revocation, seizures or recalls of product candidates or products, operating restrictions and criminal prosecutions, any of which could significantly and adversely affect supplies of our products and harm our business and results of operations.

Any products that we may develop may compete with other product candidates and products for access to manufacturing facilities. There are a limited number of manufacturers that operate under cGMP regulations and that might be capable of manufacturing for us.

Any performance failure on the part of our existing or future manufacturers could delay clinical development or marketing approval. We do not currently have arrangements in place for redundant supply or a second source for bulk drug substance. If our current contract manufacturer cannot perform as agreed, we may be required to replace that manufacturer. Although we believe that there

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are several potential alternative manufacturers who could manufacture our product candidates, we may incur added costs and delays in identifying and qualifying any such replacement.

Our current and anticipated future dependence upon others for the manufacture of our product candidates or products may adversely affect our future profit margins and our ability to commercialize any products that receive marketing approval on a timely and competitive basis.

RISKS RELATED TO OUR INTELLECTUAL PROPERTY

If we fail to comply with our obligations under our intellectual property licenses with third parties, we could lose license rights that are important to our business.

We are a party to a number of intellectual property license agreements with third parties, including the Whitehead Institute, and expect to enter into additional license agreements in the future. Our existing license agreements impose, and we expect that future license agreements will impose, various diligence, milestone payment, royalty, insurance and other obligations on us. For example, under our license agreement with the Whitehead Institute, we are required to use commercially reasonable efforts to develop and commercialize licensed products under the agreement and to satisfy other specified obligations. If we fail to comply with our obligations under these licenses, our licensors may have the right to terminate these license agreements, in which event we might not be able to market any product that is covered by these agreements, or to convert the license to a non-exclusive license, which could materially adversely affect the value of the product candidate being developed under the license agreement. Termination of these license agreements or reduction or elimination of our licensed rights may result in our having to negotiate new or reinstated licenses with less favorable terms. If the Whitehead Institute were to terminate its license agreement with us for any reason, we would lose access to the EMT technology and the ability to use the stable population of CSCs for high-throughput screening.

If we are unable to obtain and maintain patent protection for our technology and products, or if our licensors are unable to obtain and maintain patent protection for the technology or products that we license from them, or if the scope of the patent protection obtained is not sufficiently broad, our competitors could develop and commercialize technology and products similar or identical to ours, and our ability to successfully commercialize our technology and products may be adversely affected.

Our success depends in large part on our and our licensors' ability to obtain and maintain patent protection in the United States and other countries with respect to our proprietary technology and products. We and our licensors seek to protect our proprietary position by filing patent applications in the United States and abroad related to our novel technologies and products that are important to our business. To date, no patents have issued that cover any of our proprietary technology or product candidates, and we cannot be certain that any patents will issue with claims that cover any of our proprietary technology or product candidates.

The patent prosecution process is expensive and time-consuming, and we may not be able to file and prosecute all necessary or desirable patent applications at a reasonable cost or in a timely manner. It is also possible that we will fail to identify patentable aspects of our research and development output before it is too late to obtain patent protection. Moreover, in some circumstances, we do not have the right to control the preparation, filing and prosecution of patent applications, or to maintain the patents, covering technology or products that we license from third parties and are reliant on our licensors. For example, we do not control the prosecution of the patent applications licensed to us under our agreement with the Whitehead Institute. Therefore, we cannot be certain that these patents and applications will be prosecuted and enforced in a manner consistent with the best interests of our business. If such licensors fail to maintain such patents, or lose rights to those patents, the rights we have licensed may be reduced or eliminated.

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The patent position of biotechnology and pharmaceutical companies generally is highly uncertain, involves complex legal and factual questions and has in recent years been the subject of much litigation. As a result, the issuance, scope, validity, enforceability and commercial value of our and our licensors' patent rights are highly uncertain. Our and our licensors' pending and future patent applications may not result in patents being issued which protect our technology or products or which effectively prevent others from commercializing competitive technologies and products. Changes in either the patent laws or interpretation of the patent laws in the United States and other countries may diminish the value of our patents or narrow the scope of our patent protection.

The laws of foreign countries may not protect our rights to the same extent as the laws of the United States. Publications of discoveries in the scientific literature often lag behind the actual discoveries, and patent applications in the United States and other jurisdictions are typically not published until 18 months after filing, or in some cases not at all. Therefore we cannot be certain that we or our licensors were the first to make the inventions claimed in our owned or licensed patents or pending patent applications, or that we or our licensors were the first to file for patent protection of such inventions.

Assuming the other requirements for patentability are met, currently, in the United States, the first to make the claimed invention is entitled to the patent, while outside the United States, the first to file a patent application is entitled to the patent. In March 2013, the United States will transition to a first inventor to file system in which, assuming the other requirements for patentability are met, the first inventor to file a patent application will be entitled to the patent. We may be subject to a third party preissuance submission of prior art to the U.S. Patent and Trademark Office, or become involved in opposition, derivation, reexamination, *inter partes* review or interference proceedings challenging our patent rights or the patent rights of others. An adverse determination in any such submission, proceeding or litigation could reduce the scope of, or invalidate, our patent rights, allow third parties to commercialize our technology or products and compete directly with us, without payment to us, or result in our inability to manufacture or commercialize products without infringing third-party patent rights.

Even if our owned and licensed patent applications issue as patents, they may not issue in a form that will provide us with any meaningful protection, prevent competitors from competing with us or otherwise provide us with any competitive advantage. Our competitors may be able to circumvent our owned or licensed patents by developing similar or alternative technologies or products in a non-infringing manner. For example, although we expect to file patent applications with respect to our product candidate VS-507 with claims directed to its formulation and method of use, patent protection is not available for composition of matter claims directed to its active pharmaceutical ingredient. Because VS-507 lacks composition of matter protection for its active pharmaceutical ingredient, competitors will be able to offer and sell products with the same active pharmaceutical ingredient so long as these competitors do not infringe any other patents that we may obtain covering this drug.

The issuance of a patent is not conclusive as to its inventorship, scope, validity or enforceability, and our owned and licensed patents may be challenged in the courts or patent offices in the United States and abroad. Such challenges may result in loss of exclusivity or freedom to operate or in patent claims being narrowed, invalidated or held unenforceable, which could limit our ability to stop others from using or commercializing similar or identical technology and products, or limit the duration of the patent protection of our technology and products. Given the amount of time required for the development, testing and regulatory review of new product candidates, patents protecting such candidates might expire before or shortly after such candidates are commercialized. As a result, our owned and licensed patent portfolio may not provide us with sufficient rights to exclude others from commercializing products similar or identical to ours.

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We may become involved in lawsuits to protect or enforce our patents, which could be expensive, time consuming and unsuccessful.

Competitors may infringe our patents. To counter infringement or unauthorized use, we may be required to file infringement claims, which can be expensive and time consuming. In addition, in an infringement proceeding, a court may decide that a patent of ours is invalid or unenforceable, or may refuse to stop the other party from using the technology at issue on the grounds that our patents do not cover the technology in question. An adverse result in any litigation proceeding could put one or more of our patents at risk of being invalidated or interpreted narrowly. 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, our licensors may have rights to file and prosecute such claims and we are reliant on them.

Third parties may initiate legal proceedings alleging that we are infringing their intellectual property rights, the outcome of which would be uncertain and could have a material adverse effect on the success of our business.

Our commercial success depends upon our ability and the ability of our collaborators to develop, manufacture, market and sell our product candidates and use our proprietary technologies without infringing the proprietary rights of third parties. We have yet to conduct comprehensive freedom-to-operate searches to determine whether certain of the patent rights licensed to us by the Whitehead Institute would infringe patents issued to third parties. We may become party to, or threatened with, future adversarial proceedings or litigation regarding intellectual property rights with respect to our products and technology, including interference proceedings before the U.S. Patent and Trademark Office. Third parties may assert infringement claims against us based on existing patents or patents that may be granted in the future. If we are found to infringe a third party's intellectual property rights, we could be required to obtain a license from such third party to continue developing and marketing our products and technology. However, we may not be able to obtain any required license on commercially reasonable terms or at all. Even if we were able to obtain a license, it could be non-exclusive, thereby giving our competitors access to the same technologies licensed to us. We could be forced, including by court order, to cease commercializing the infringing technology or product. In addition, we could be found liable for monetary damages. A finding of infringement could prevent us from commercializing our product candidates or force us to cease some of our business operations, which could materially harm our business. Claims that we have misappropriated the confidential information or trade secrets of third parties could have a similar negative impact on our business.

We may be subject to claims that our employees have wrongfully used or disclosed alleged trade secrets of their former employers.

Many of our employees were previously employed at universities or other biotechnology or pharmaceutical companies, including our competitors or potential competitors. Although we try to ensure that our employees do not use the proprietary information or know-how of others in their work for us, we may be subject to claims that we or these employees have used or disclosed intellectual property, including trade secrets or other proprietary information, of any such employee's former employer. Litigation may be necessary to defend against these 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.

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Intellectual property litigation could cause us to spend substantial resources and distract our personnel from their normal responsibilities.

Even if resolved in our favor, litigation or other legal proceedings relating to intellectual property claims may cause us to incur significant expenses, and could distract our technical and management personnel from their normal responsibilities. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments and if securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of our common stock. Such litigation or proceedings could substantially increase our operating losses and reduce the resources available for development activities or any future sales, marketing or distribution activities. We may not have sufficient financial or other resources to adequately conduct such litigation or proceedings. Some of our competitors may be able to sustain the costs of such litigation or proceedings more effectively than we can because of their greater financial resources. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could have a material adverse effect on our ability to compete in the marketplace.

If we are unable to protect the confidentiality of our trade secrets, our business and competitive position would be harmed.

In addition to seeking patents for some of our technology and products, we also rely on trade secrets, including unpatented know-how, technology and other proprietary information, to maintain our competitive position. We seek to protect these trade secrets, in part, by entering into non-disclosure and confidentiality agreements with parties who have access to them, such as our employees, corporate collaborators, outside scientific collaborators, contract manufacturers, consultants, advisors and other third parties. We also enter into confidentiality and invention or patent assignment agreements with our employees and consultants. Despite these efforts, any of these parties may breach the agreements and disclose our proprietary information, including our trade secrets, and we may not be able to obtain adequate remedies for such breaches. Enforcing a claim that a party illegally disclosed or misappropriated a trade secret is difficult, expensive and time-consuming, and the outcome is unpredictable. In addition, some courts inside and outside the United States are less willing or unwilling to protect trade secrets. If any of our trade secrets were to be lawfully obtained or independently developed by a competitor, we would have no right to prevent them from using that technology or information to compete with us. If any of our trade secrets were to be disclosed to or independently developed by a competitor, our competitive position would be harmed.

RISKS RELATED TO REGULATORY APPROVAL OF OUR PRODUCT CANDIDATES AND OTHER LEGAL COMPLIANCE MATTERS

If we are not able to obtain, or if there are delays in obtaining, required regulatory approvals, we will not be able to commercialize our product candidates, and our ability to generate revenue will be materially impaired.

Our product candidates and the activities associated with their development and commercialization, including their design, testing, manufacture, safety, efficacy, recordkeeping, labeling, storage, approval, advertising, promotion, sale and distribution, are subject to comprehensive regulation by the FDA and other regulatory agencies in the United States and by comparable authorities in other countries. Failure to obtain marketing approval for a product candidate will prevent us from commercializing the product candidate. We have not received approval to market any of our product candidates from regulatory authorities in any jurisdiction. We have only limited experience in filing and supporting the applications necessary to gain marketing approvals and expect to rely on third-party contract research organizations to assist us in this process. Securing FDA approval requires the submission of extensive

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preclinical and clinical data and supporting information to the FDA for each therapeutic indication to establish the product candidate's safety and efficacy. Securing FDA approval also requires the submission of information about the product manufacturing process to, and inspection of manufacturing facilities by, the FDA. Our product candidates may not be effective, may be only moderately effective or may prove to have undesirable or unintended side effects, toxicities or other characteristics that may preclude our obtaining marketing approval or prevent or limit commercial use.

The process of obtaining marketing approvals, both in the United States and abroad, is expensive, may take many years if additional clinical trials are required, if approval is obtained at all, and can vary substantially based upon a variety of factors, including the type, complexity and novelty of the product candidates involved. Changes in marketing approval policies during the development period, changes in or the enactment of additional statutes or regulations, or changes in regulatory review for each submitted product application, may cause delays in the approval or rejection of an application. The FDA has substantial discretion in the approval process and may refuse to accept any application or may decide that our data is insufficient for approval and require additional preclinical, clinical or other studies. In addition, varying interpretations of the data obtained from preclinical and clinical testing could delay, limit or prevent marketing approval of a product candidate. Any marketing approval we ultimately obtain may be limited or subject to restrictions or post-approval commitments that render the approved product not commercially viable.

If we experience delays in obtaining approval or if we fail to obtain approval of our product candidates, the commercial prospects for our product candidates may be harmed and our ability to generate revenues will be materially impaired.

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

In order to market and sell our products in the European Union and many other jurisdictions, we or our third-party collaborators must obtain separate marketing approvals and comply with numerous and varying regulatory requirements. 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. In addition, in many countries outside the United States, it is required that the product be approved for reimbursement before the product can be approved for sale in that country. We or these third parties may not 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 marketing approvals and may not receive necessary approvals to commercialize our products in any market.

Any product candidate for which we obtain marketing approval could be subject to restrictions or withdrawal from the market and we may be subject to penalties if we fail to comply with regulatory requirements or if we experience unanticipated problems with our products, when and if any of them are approved.

Any product candidate for which we obtain marketing approval, along with the manufacturing processes, post-approval clinical data, labeling, advertising and promotional activities for such product, will be subject to continual requirements of and review by the FDA and other regulatory authorities. These requirements include submissions of safety and other post-marketing information and reports, registration and listing requirements, cGMP requirements relating to quality control, quality assurance

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and corresponding maintenance of records and documents, requirements regarding the distribution of samples to physicians and recordkeeping. Even if marketing approval of a product candidate is granted, the approval may be subject to limitations on the indicated uses for which the product may be marketed or to the conditions of approval, or contain requirements for costly post-marketing testing and surveillance to monitor the safety or efficacy of the product. The FDA closely regulates the post-approval marketing and promotion of drugs to ensure drugs are marketed only for the approved indications and in accordance with the provisions of the approved labeling. The FDA imposes stringent restrictions on manufacturers' communications regarding off-label use and if we do not market our products for their approved indications, we may be subject to enforcement action for off-label marketing.

In addition, later discovery of previously unknown problems with our products, manufacturers or manufacturing processes, or failure to comply with regulatory requirements, may yield various results, including:

- > restrictions on such products, manufacturers or manufacturing processes;
- > restrictions on the labeling or marketing of a product;
- > restrictions on product distribution or use;
- > requirements to conduct post-marketing clinical trials;
- > warning or untitled letters;
- > withdrawal of the products from the market;
- > refusal to approve pending applications or supplements to approved applications that we submit;
- > recall of products;
- > fines, restitution or disgorgement of profits or revenue;
- > suspension or withdrawal of marketing approvals;
- > refusal to permit the import or export of our products;
- > product seizure; or
- > injunctions or the imposition of civil or criminal penalties.

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 play a primary role in the recommendation and prescription of any product candidates for which we obtain marketing 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 market, sell and distribute our products for which we obtain marketing approval. Restrictions under applicable federal and state healthcare laws and regulations, include the following:

- > the federal healthcare anti-kickback statute prohibits, 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 either the referral of an individual for, or the purchase, order or

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recommendation of, any good or service, for which payment may be made under federal and state healthcare programs such as Medicare and Medicaid;

- the federal False Claims Act imposes criminal and civil penalties, including civil whistleblower or *qui tam* actions, against individuals or entities for knowingly presenting, or causing to be presented, to the federal government, 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, as amended by the Health Information Technology for Economic and Clinical Health Act, imposes criminal and civil liability for executing a scheme to defraud any healthcare benefit program and also imposes obligations, including mandatory contractual terms, with respect to safeguarding the privacy, security and transmission of individually identifiable health information;
- the federal false statements statute prohibits knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false statement in connection with the delivery of or payment for healthcare benefits, items or services;
- the federal transparency requirements under the Health Care Reform Law requires manufacturers of drugs, devices, biologics and medical supplies to report to the Department of Health and Human Services information related to physician payments and other transfers of value and physician ownership and investment interests; and
- analogous state 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, and 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 in addition to requiring drug manufacturers to report information related to payments to physicians and other health care providers or marketing expenditures.

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, exclusion from government funded healthcare programs, such as Medicare and Medicaid, and the curtailment or restructuring of our operations. If any of the physicians or other providers or entities with whom we expect to do business are found to be not in compliance with applicable laws, they may be subject to criminal, civil or administrative sanctions, including exclusions from government funded healthcare programs.

Recently enacted and future legislation may increase the difficulty and cost for us to obtain marketing approval of and commercialize our product candidates and affect the prices we may obtain.

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 marketing approval of our product candidates, restrict or regulate post-approval activities and affect our ability to profitably sell any product candidates for which we obtain marketing approval.

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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 addition, this legislation provided authority for limiting the number of drugs that will be covered in any therapeutic class. Cost reduction initiatives and other provisions of this legislation could decrease the coverage and price that we receive for any approved products. While the Medicare Modernization Act applies 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 the Medicare Modernization Act may result in a similar reduction in payments from private payors.

More recently, in March 2010, President Obama signed into law the Health Care Reform Law, 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 health care and health insurance industries, impose new taxes and fees on the health industry and impose additional health policy reforms. Effective October 1, 2010, the Health Care Reform Law revises the definition of "average manufacturer price" for reporting purposes, which could increase the amount of Medicaid drug rebates to states. Further, the new law imposes a significant annual fee on companies that manufacture or import branded prescription drug products. Substantial new provisions affecting compliance have also been enacted, which may affect our business practices with health care practitioners. We will not know the full effects of the Health Care Reform Law until applicable federal and state agencies issue regulations or guidance under the new law. Although it is too early to determine the effect of the Health Care Reform Law, the new law appears likely to continue the pressure on pharmaceutical pricing, especially under the Medicare program, and may also increase our regulatory burdens and operating costs.

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 marketing approvals of our product candidates, if any, may be. In addition, increased scrutiny by the U.S. Congress of the FDA's approval process may significantly delay or prevent marketing approval, as well as subject us to more stringent product labeling and post-marketing testing and other requirements.

RISKS RELATED TO EMPLOYEE MATTERS AND MANAGING GROWTH

Our future success depends on our ability to retain our chief executive officer and other key executives and to attract, retain and motivate qualified personnel.

We are highly dependent on Christoph Westphal, our Chief Executive Officer, Robert Forrester, our Chief Operating Officer, and Jonathan Pachter, our Vice President, Head of Research, as well as the other principal members of our management and scientific teams, including our scientific co-founders, Robert Weinberg, Eric Lander and Piyush Gupta. Although we have formal employment agreements with Robert Forrester and Jonathan Pachter, these agreements do not prevent them from terminating their employment with us at any time. We do not have an employment agreement with Christoph Westphal. We do not maintain "key person" insurance for any of our executives or other employees. The loss of the services of any of these persons could impede the achievement of our research, development and commercialization objectives.

In addition to his role as Chairman of the board of directors and Chief Executive Officer of our company, Dr. Westphal also serves as a general partner of Longwood Founders Fund, LP, a venture

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capital investment fund and one of our principal stockholders. We and Dr. Westphal anticipate that he will transition to an executive Chairman role at our company in the future based on our having meaningfully advanced our discovery, research and development efforts, the overall growth of our company and our identifying and hiring a suitable successor. In connection with Dr. Westphal's transition to this role, we will need to recruit and hire a new principal executive officer. Our inability to hire a suitable executive to assume this position in a timely fashion could delay the execution of our business plans or disrupt our operations.

Recruiting and retaining qualified scientific, clinical, manufacturing and sales and marketing personnel will also be critical to our success. We may not be able to attract and retain these personnel on acceptable terms given the competition among numerous pharmaceutical and biotechnology companies for similar personnel. We also experience competition for the hiring of scientific and clinical personnel from universities and research institutions. In addition, we rely on consultants and advisors, including scientific and clinical advisors, to assist us in formulating our research and development and commercialization strategy. Our consultants and advisors, including our scientific co-founders, may be employed by employers other than us and may have commitments under consulting or advisory contracts with other entities that may limit their availability to us.

We expect to expand our development, regulatory and future sales and marketing capabilities, and as a result, we may encounter difficulties in managing our growth, which could disrupt our operations.

We expect to experience significant growth in the number of our employees and the scope of our operations, particularly in the areas of drug development, regulatory affairs and sales and marketing. To manage our anticipated future growth, we must continue to implement and improve our managerial, operational and financial systems, expand our facilities and continue to recruit and train additional qualified personnel. Due to our limited financial resources and the limited experience of our management team in managing a company with such anticipated growth, we may not be able to effectively manage the expansion of our operations or recruit and train additional qualified personnel. The physical expansion of our operations may lead to significant costs and may divert our management and business development resources. Any inability to manage growth could delay the execution of our business plans or disrupt our operations.

RISKS RELATED TO OUR COMMON STOCK AND THIS OFFERING

After this offering, our executive officers, directors and principal stockholders will maintain the ability to control all matters submitted to stockholders for approval.

Upon the closing of this offering, our executive officers, directors and stockholders who owned more than 5% of our outstanding common stock before this offering will, in the aggregate, beneficially own shares representing approximately % of our capital stock. As a result, if these stockholders were to choose to act together, they would be able to control all matters submitted to our stockholders for approval, as well as our management and affairs. For example, these persons, if they choose to act together, would control the election of directors and approval of any merger, consolidation or sale of all or substantially all of our assets. This concentration of voting power could delay or prevent an acquisition of our company on terms that other stockholders may desire.

Risk factors

Provisions in our corporate charter documents and under Delaware law could make an acquisition of us, which may be beneficial to our stockholders, more difficult and may prevent attempts by our stockholders to replace or remove our current management.

Provisions in our corporate charter and our bylaws that will become effective upon the closing of this offering may discourage, delay or prevent a merger, acquisition or other change in control of us that stockholders may consider favorable, including transactions in which you might otherwise receive a premium for your shares. These provisions could also limit the price that investors might be willing to pay in the future for shares of our common stock, thereby depressing the market price of our common stock. In addition, because our board of directors is responsible for appointing the members of our management team, 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. Among other things, these provisions:

- establish a classified board of directors such that not all members of the board are elected at one time;
- allow the authorized number of our directors to be changed only by resolution of our board of directors;
- limit the manner in which stockholders can remove directors from the board;
- establish advance notice requirements for stockholder proposals that can be acted on at stockholder meetings and nominations to our board of directors;
- require that stockholder actions must be effected at a duly called stockholder meeting and prohibit actions by our stockholders by written consent;
- limit who may call stockholder meetings;
- authorize our board of directors to issue preferred stock without stockholder approval, which could be used to institute a "poison pill" that would work to dilute the stock ownership of a potential hostile acquirer, effectively preventing acquisitions that have not been approved by our board of directors; and
- require the approval of the holders of at least 75% of the votes that all our stockholders would be entitled to cast to amend or repeal certain provisions of our charter or bylaws.

Moreover, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which prohibits a person who owns in excess of 15% of our outstanding voting stock from merging or combining with us for a period of three years after the date of the transaction in which the person acquired in excess of 15% of our outstanding voting stock, unless the merger or combination is approved in a prescribed manner.

If you purchase shares of common stock in this offering, you will suffer immediate dilution of your investment.

The initial public offering price of our common stock is substantially higher than the net tangible book value per share of our common stock. Therefore, if you purchase shares of our common stock in this offering, you will pay a price per share that substantially exceeds our net tangible book value per share after this offering. To the extent outstanding options are exercised, you will incur further dilution. 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, you will experience immediate dilution of \$ _____ per share, representing the difference between our pro forma net tangible book value per

Risk factors

share after giving effect to this offering and the assumed initial public offering price. In addition, purchasers of common stock in this offering will have contributed approximately % of the aggregate price paid by all purchasers of our stock but will own only approximately % of our common stock outstanding after this offering.

An active trading market for our common stock may not develop.

Prior to this offering, there has been no public market for our common stock. The initial public offering price for our common stock will be determined through negotiations with the underwriters. Although we are applying to have our common stock listed on The NASDAQ Global Market, an active trading market for our shares may never develop or be sustained following this offering. If an active market for our common stock does not develop, it may be difficult for you to sell shares you purchase in this offering without depressing the market price for the shares or at all.

If our stock price is volatile, purchasers of our common stock could incur substantial losses.

Our stock price is likely to be volatile. The stock market in general and the market for biopharmaceutical companies in particular have experienced extreme volatility that has often been unrelated to the operating performance of particular companies. As a result of this volatility, you may not be able to sell your common stock at or above the initial public offering price. The market price for our common stock may be influenced by many factors, including:

- the success of competitive products or technologies;
- 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 discover, develop, acquire or in-license 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;
- changes in the structure of healthcare payment systems;
- market conditions in the pharmaceutical and biotechnology sectors;
- general economic, industry and market conditions; and
- the other factors described in this "Risk factors" section.

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

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

Risk factors

result in financial losses that could have a material adverse effect on our business, cause the 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.

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 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.

A significant portion of our total outstanding shares are restricted from immediate resale but may be sold into the market in the near future, which could cause the market price of our common stock to drop significantly, even if our business is doing well.

Sales of a substantial number of shares of our common stock in the public market could occur at any time. These sales, or the perception in the market that the holders of a large number of shares intend to sell shares, could reduce the market price of our common stock. After this offering, we will have outstanding _____ shares of common stock based on the number of shares outstanding as of September 30, 2011. 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, _____ shares are currently 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 _____ shares of our common stock will have rights, subject to some 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.

Special note regarding forward-looking statements

This prospectus contains forward-looking statements that involve substantial risks and uncertainties. All statements, other than statements of historical facts, contained in this prospectus, including statements regarding our strategy, future operations, future financial position, future revenues, projected costs, prospects, plans and objectives of management, are forward-looking statements. The words "anticipate," "believe," "estimate," "expect," "intend," "may," "plan," "predict," "project," "target," "potential," "will," "would," "could," "should," "continue," and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words.

The forward-looking statements in this prospectus include, among other things, statements about:

- our ongoing and planned discovery and development of drugs targeting cancer stem cells;
- our expectations regarding the role of cancer stem cells in tumor recurrence and metastasis;
- the potential advantages of our EMT technology;
- our ability to acquire or in-license any compounds or product candidates from third parties that we identify using our proprietary technology or otherwise;
- our plans to develop and commercialize our product candidates and companion diagnostics;
- our ability to establish and maintain collaborations;
- the timing of and our ability to obtain and maintain regulatory approvals for our product candidates;
- the rate and degree of market acceptance and clinical utility of our products;
- our intellectual property position;
- our expectations regarding the use of proceeds from this offering; and
- our estimates regarding expenses, future revenues, capital requirements and needs for additional financing.

We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements, and you should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements we make. We have included important factors in the cautionary statements included in this prospectus, particularly in the "Risk factors" section, that we believe could cause actual results or events to differ materially from the forward-looking statements that we make. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures or investments we may make.

You should read this prospectus and the documents that we reference in this prospectus and have filed as exhibits to the registration statement of which this prospectus is a part completely and with the understanding that our actual future results may be materially different from what we expect. The forward-looking statements contained in this prospectus are made as of the date of this prospectus, and we do not assume any obligation to update any forward-looking statements except as required by applicable law.

Use of proceeds

We estimate that the net proceeds from our issuance and sale of _____ shares of our common stock in this offering will be approximately \$ _____ million, assuming an initial public offering price of \$ _____ per share, which is the midpoint of the price range listed on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. If the underwriters exercise their over-allotment option in full, we estimate that the net proceeds from this offering will be approximately \$ _____ million.

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

We currently estimate that we will use the net proceeds from this offering as follows:

- > approximately \$ _____ to complete preclinical and Phase 1 clinical development of VS-507;
- > approximately \$ _____ for preclinical studies of our other proprietary product candidates and companion diagnostics;
- > approximately \$ _____ for discovery, research and preclinical studies of additional compounds; and
- > the balance, if any, to fund working capital, capital expenditures and other general corporate purposes, which may include the acquisition or in-license of additional compounds, product candidates or technology.

This expected use of the net proceeds from this offering represents our intentions based upon our current plans and business conditions. The amounts and timing of our actual expenditures may vary significantly depending on numerous factors, including the progress of our development efforts, the status of and results from 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 from this offering. We have no current understandings, agreements or commitments for any material acquisitions or licenses of any compounds, product candidates or technology.

Based on our planned use of the net proceeds from this offering, we expect that such funds, together with our existing cash and cash equivalents, will be sufficient to enable us to complete preclinical and Phase 1 clinical development of VS-507 and, subject to successfully completing Phase 1 clinical development, initiate Phase 2 clinical development of VS-507. However, it is possible that we will not achieve the progress that we expect because the actual costs and timing of research and development are difficult to predict, subject to substantial risks and delays and often vary depending on the particular indication and development strategy. We do not expect that the net proceeds from this offering and our existing cash and cash equivalents will be sufficient to enable us to fund the completion of development of any of our product candidates.

Pending our use of the 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 U.S. government securities.

Dividend policy

We have never declared or paid cash dividends on our common stock. We currently intend to retain all of our future earnings, if any, to finance the growth and development of our business. We do not intend to pay cash dividends to holders of our common stock in the foreseeable future.

Capitalization

The following table sets forth our cash and cash equivalents and capitalization as of September 30, 2011:

- on an actual basis;
- on a pro forma basis to give effect to:
 - our issuance and sale in November 2011 of an aggregate of 8,934,493 shares of our series C preferred stock at a price per share of \$2.25 for an aggregate purchase price of \$20.1 million; and
 - the automatic conversion of all outstanding shares of our preferred stock, including shares of our series C preferred stock that we issued and sold in November 2011, into an aggregate of 40,959,493 shares of our common stock upon the closing of this offering.
- on a pro forma as adjusted basis to give further effect to our issuance and sale of _____ shares of our common stock in this offering at an assumed initial public offering price of \$ _____ per share, which is the midpoint of the price range listed on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

Our capitalization following the closing of this offering will be adjusted based on the actual initial public offering price and other terms of this offering determined at pricing. You should read this table together with "Selected financial data," our financial statements and the related notes appearing at the end of this prospectus and the "Management's discussion and analysis of financial condition and results of operations" section of this prospectus.

	As of September 30, 2011		
	Actual	Pro forma	Pro forma as adjusted
	(in thousands, except per share data)		
Cash and cash equivalents	\$ 41,421	\$ 61,524	
Series A redeemable convertible preferred stock, \$0.0001 par value, 16,000 shares authorized, issued and outstanding, actual; and no shares authorized, issued and outstanding, pro forma and pro forma as adjusted	15,935	—	
Series B redeemable convertible preferred stock, \$0.0001 par value, 16,025 shares authorized, issued and outstanding, actual; and no shares authorized, issued and outstanding, pro forma and pro forma as adjusted	31,943	—	
Series C redeemable convertible preferred stock, \$0.0001 par value, no shares authorized, issued and outstanding, actual, pro forma and pro forma as adjusted	—	—	
Common stock, \$0.0001 par value, 45,000 shares authorized and 4,986 shares issued and outstanding ⁽¹⁾ , actual; and 52,961 shares authorized and 51,436 shares issued and outstanding, pro forma; _____ shares authorized and _____ shares issued and outstanding, pro forma as adjusted	1	5	
Additional paid-in capital	822	68,799	
Deficit accumulated during the development stage	(8,462)	(8,462)	
Total stockholders' (deficit) equity	(7,639)	60,342	
Total capitalization	\$ 40,239	\$ 60,342	

(1) Common stock issued and outstanding does not include 5,490 shares of unvested restricted stock.

Capitalization

A \$1.00 increase (decrease) in the assumed initial public offering price of \$ _____ per share, which is the midpoint of the price range listed on the cover page of this prospectus, would increase (decrease) each of cash and cash equivalents, additional paid-in capital, total stockholders' equity (deficit) and total capitalization on a pro forma as adjusted basis by approximately \$ _____ million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting estimated underwriting discounts and commissions.

The table above does not include:

- > 1,418,000 shares of our common stock issuable upon the exercise of stock options outstanding as of September 30, 2011 at a weighted-average exercise price of \$0.21 per share;
- > 105,348 additional shares of our common stock available for future issuance as of September 30, 2011 under our 2010 equity incentive plan; and
- > _____ additional shares of our common stock available for future issuance, as of the closing of this offering, under our 2012 stock incentive plan.

Dilution

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

Our historical net tangible book value as of September 30, 2011 was \$(7.7) million, or \$(0.73) per share of our common stock. Historical net tangible book value per share represents the amount of our total tangible assets less total liabilities, divided by the number of shares of our common stock outstanding.

Our pro forma net tangible book value as of September 30, 2011 was \$60.3 million, or \$1.18 per share of our common stock. Pro forma net tangible book value per share represents the amount of our total tangible assets less our total liabilities, divided by the pro forma number of shares of our common stock outstanding after giving effect to our issuance and sale in November 2011 of an aggregate of 8,934,493 shares of our series C preferred stock at a price per share of \$2.25 for an aggregate purchase price of \$20.1 million and the automatic conversion of all outstanding shares of our preferred stock, including shares of our series C preferred stock that we issued and sold in November 2011, into an aggregate of 40,959,493 shares of our common stock upon the closing of this offering.

After giving effect to our issuance and sale of _____ shares of our common stock in this offering at an assumed initial public offering price of \$ _____ per share, which is the midpoint of the price range listed on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us, our pro forma net tangible book value as of September 30, 2011 would have been \$ _____ million, or \$ _____ per share. This represents an immediate increase in pro forma net tangible book value per share of \$ _____ to existing stockholders and immediate dilution of \$ _____ in pro forma net tangible book value per share to new investors purchasing common stock in this offering.

Dilution per share to new investors is determined by subtracting pro forma net tangible book value per share after this offering from the initial public offering price per share paid by new investors. The following table illustrates this dilution on a per share basis.

Assumed initial public offering price per share	\$
Historical net tangible book value per share as of September 30, 2011	\$ (0.73)
Increase attributable to the conversion of outstanding preferred stock	1.91
Pro forma net tangible book value per share as of September 30, 2011	1.18
Increase in net tangible book value per share attributable to new investors	
Pro forma net tangible book value per share after this offering	
Dilution per share to new investors	\$

A \$1.00 increase (decrease) in the assumed initial public offering price of \$ _____ per share, which is the midpoint of the price range listed on the cover page of this prospectus, would increase (decrease) our pro forma net tangible book value by approximately \$ _____, our pro forma net tangible book value per share by approximately \$ _____ and dilution per share to new investors by approximately _____

Dilution

\$ _____, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting estimated underwriting discounts and commissions.

If the underwriters exercise their over-allotment option or if any additional shares are issued in connection with outstanding options, you will experience further dilution.

The following table summarizes, on a pro forma basis as of September 30, 2011, the total number of shares purchased from us, the total consideration paid, or to be paid, and the average price per share paid, or to be paid, by existing stockholders and by new investors in this offering at an assumed initial public offering price of \$ _____ per share, which is the midpoint of the price range listed on the cover page of this prospectus, before deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. As the table shows, new investors purchasing shares in this offering will pay an average price per share substantially higher than our existing stockholders paid.

	Shares purchased		Total consideration		Average price per share
	Number	Percentage	Amount	Percentage	
Existing stockholders			% \$		% \$
New investors					
Total			100% \$		100%

A \$1.00 increase (decrease) in the assumed initial public offering price of \$ _____ per share, which is the midpoint of the price range listed on the cover page of this prospectus, would increase (decrease) the total consideration paid by new investors by \$ _____ million and increase (decrease) the percentage of total consideration paid by new investors by approximately _____ %, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same.

The table above is based on actual shares of our common stock outstanding as of September 30, 2011 and 40,959,493 additional shares of our common stock issuable upon the automatic conversion of all outstanding shares of our preferred stock, including shares of our series C preferred stock that we issued and sold in November 2011, upon the closing of this offering.

The table above excludes:

- > 1,418,000 shares of our common stock issuable upon the exercise of stock options outstanding as of September 30, 2011 at a weighted-average exercise price of \$0.21 per share;
- > 105,348 additional shares of our common stock available for future issuance as of September 30, 2011 under our 2010 equity incentive plan; and
- > additional shares of our common stock available for future issuance, as of the closing of this offering, under our 2012 stock incentive plan.

If the underwriters exercise their over-allotment option in full, the following will occur:

- > the percentage of shares of our common stock held by existing stockholders will decrease to approximately _____ % of the total number of shares of our common stock outstanding after this offering; and
- > the number of shares of our common stock held by new investors will increase to _____, or approximately _____ % of the total number of shares of our common stock outstanding after this offering.

Selected financial data

You should read the following selected financial data together with our financial statements and the related notes appearing at the end of this prospectus and the "Management's discussion and analysis of financial condition and results of operations" section of this prospectus. We have derived the statements of operations data for the period from August 4, 2010 (inception) to December 31, 2010 and the balance sheet data as of December 31, 2010 from our audited financial statements included in this prospectus. We have derived the statements of operations data for the nine months ended September 30, 2011 and the period from August 4, 2010 (inception) to September 30, 2011 and the balance sheet data as of September 30, 2011 from our unaudited financial statements included in this prospectus. The unaudited financial data include, in the opinion of our management, all adjustments, consisting only of normal recurring adjustments, that are necessary for a fair presentation of our financial position and results of operations for these periods. Our historical results for any prior period are not necessarily indicative of results to be expected in any future period, and our results for any interim period are not necessarily indicative of results to be expected for a full fiscal year.

Statement of operations data:	Period from August 4, 2010 (inception) to December 31, 2010	Nine months ended September 30, 2011	Period from August 4, 2010 (inception) to September 30, 2011
	(in thousands, except per share data)		
Operating expenses:			
Research and development	\$ 400	\$ 5,483	\$ 5,883
General and administrative	384	2,195	2,579
Total operating expenses	784	7,678	8,462
Operating loss	(784)	(7,678)	(8,462)
Net loss	\$ (784)	\$ (7,678)	\$ (8,462)
Accretion of preferred stock	(2)	(18)	(20)
Net loss applicable to common stockholders	\$ (786)	\$ (7,696)	\$ (8,482)
Net loss per share applicable to common stockholders— basic and diluted	\$ (0.26)	\$ (1.79)	\$ (2.20)
Weighted-average number of common shares used in net loss per share applicable to common stockholders—basic and diluted	2,976	4,291	3,841
Pro forma net loss per share applicable to common stockholders—basic and diluted	\$ (0.17)	\$ (0.38)	
Weighted-average number of common shares used in pro forma net loss per share applicable to common stockholders—basic and diluted	4,638	20,474	

Pro forma basic and diluted net loss per common share is calculated assuming the automatic conversion of all outstanding shares of our preferred stock, including shares of our series C preferred

Selected financial data

stock that we issued and sold in November 2011, into an aggregate of 40,959,493 shares of our common stock upon the closing of this offering.

The pro forma balance sheet data set forth below gives effect to:

- our issuance and sale in November 2011 of an aggregate of 8,934,493 shares of our series C preferred stock at a price per share of \$2.25 for an aggregate purchase price of \$20.1 million; and
- the automatic conversion of all outstanding shares of our preferred stock, including shares of our series C preferred stock that we issued and sold in November 2011, into an aggregate of 40,959,493 shares of our common stock upon the closing of this offering.

The pro forma as adjusted balance sheet data set forth below give further effect to our issuance and sale of _____ shares of our common stock in this offering at an assumed initial public offering price of \$ _____ per share, which is the midpoint of the price range listed on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

Balance sheet data:	As of September 30, 2011		
	Actual	Pro forma	Pro forma as adjusted
		(in thousands)	
Cash and cash equivalents	\$ 41,421	\$ 61,524	
Working capital	39,419	59,522	
Total assets	42,364	62,467	
Redeemable convertible preferred stock	47,878	—	
Deficit accumulated during the development stage	(8,462)	(8,462)	
Total stockholders' (deficit) equity	(7,639)	60,342	

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 our financial statements and related notes appearing at the end of this prospectus. Some of the information contained in this discussion and analysis or set forth elsewhere in this prospectus, including information with respect to our plans and strategy for our business and related financing, includes forward-looking statements that involve risks and uncertainties. You should read the "Risk factors" section of this prospectus for a discussion of important factors that could cause actual results to 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 biopharmaceutical company focused on discovering and developing proprietary small molecule drugs targeting cancer stem cells in breast and other cancers along with proprietary companion diagnostics. A cancer stem cell is a particularly aggressive type of tumor cell, resistant to conventional cancer therapy, that we believe is an underlying cause of tumor recurrence and metastasis. Our scientific co-founders, Robert Weinberg, Ph.D., Eric Lander, Ph.D., and Piyush Gupta, Ph.D., have made discoveries that link the epithelial-to-mesenchymal transition, or EMT, to the emergence of cancer stem cells. This transition involves the transformation of one type of cancer cell into a more aggressive and drug resistant type of cancer cell. Building on these discoveries, our scientific co-founders developed proprietary technology to create a stable population of cancer stem cells that we use to screen for and identify small molecule compounds that target cancer stem cells. We expect to file an investigational new drug application, or IND, with the U.S. Food and Drug Administration, or FDA, in late 2012 to initiate a Phase 1 clinical trial of our most advanced drug candidate, VS-507.

We commenced active operations in the second half of 2010. Our operations to date have been limited to organizing and staffing our company, business planning, raising capital, acquiring and developing our technology, identifying potential product candidates and undertaking preclinical studies of our most advanced product candidates. To date, we have not generated any revenues and have financed our operations with net proceeds from the private placement of our preferred stock.

As of September 30, 2011, we had a deficit accumulated during the development stage of \$8.5 million. Our net loss was \$7.7 million for the nine months ended September 30, 2011, \$784,000 for the period from August 4, 2010 (inception) to December 31, 2010 and \$8.5 million for the period from August 4, 2010 (inception) to September 30, 2011. We expect to incur significant expenses and increasing operating losses for the foreseeable future. We expect our expenses to increase in connection with our ongoing activities, particularly as we continue the research and development and later initiate clinical trials of, and seek marketing approval for, our product candidates. In addition, if we obtain marketing approval for any of our product candidates, we expect to incur significant commercialization expenses related to product sales, marketing, manufacturing and distribution. Furthermore, upon the closing of this offering, we expect to incur additional costs associated with operating as a public company. Accordingly, we will need to obtain substantial additional funding in connection with our continuing operations. Adequate additional financing may not be available to us on acceptable terms, or at all. If we are unable to raise capital when needed or on attractive terms, we would be forced to delay, reduce or eliminate our research and development programs or any future commercialization efforts. We will need to generate significant revenues to achieve profitability, and we may never do so.

FINANCIAL OPERATIONS OVERVIEW

Revenue

To date, we have not generated any revenues. Our ability to generate product 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.

Research and development expenses

Research and development expenses consist of costs associated with our research activities, including our drug discovery efforts, and the development of our therapeutic product candidates and companion diagnostics. Our research and development expenses consist of:

- > employee-related expenses, including salaries, benefits, travel and stock-based compensation expense;
- > external research and development expenses incurred under arrangements with third parties, such as contract research organizations, or CROs, manufacturing organizations and consultants, including our scientific advisory board;
- > license fees; and
- > facilities, depreciation and other allocated expenses, which include direct and allocated expenses for rent and maintenance of facilities, depreciation of leasehold improvements and equipment, and laboratory and other supplies.

We expense research and development cost to operations as incurred. We account for nonrefundable advance payments for goods and services that will be used in future research and development activities as expenses when the service has been performed or when the goods have been received, rather than when the payment is made.

We use our employee and infrastructure resources across multiple research and development projects. We do not allocate employee-related expenses or depreciation to any particular project. Because all of our development projects are in preclinical development, we do not track research and development costs by project. The components of our research and development costs are described in more detail in "—Results of operations." We expect to track specific project costs when product candidates enter toxicology studies to enable the filing of an IND with the FDA.

We anticipate that our research and development expenses will increase significantly in future periods as we increase the scope and rate of our drug discovery efforts and begin costlier development activities, including clinical trials for our current and additional product candidates in the future.

Our most advanced product candidate is the small molecule VS-507. We are currently evaluating VS-507 in preclinical studies as a potential therapy for breast cancer. We expect to initiate IND-enabling toxicology studies for VS-507 in late 2011. Assuming successful completion of preclinical studies, including IND-enabling toxicology studies, we expect to file an IND with the FDA in late 2012 to initiate a Phase 1 clinical trial of VS-507.

The successful development of our product candidates is highly uncertain. As this time, we cannot reasonably estimate or know the nature, timing and estimated costs of the efforts that will be necessary to complete development of our product candidates or the period, if any, in which material net cash

Management's discussion and analysis of financial condition and results of operations

inflows from our product candidates may commence. This is due to the numerous risks and uncertainties associated with developing drugs, including the uncertainty of:

- > the scope, rate of progress and expense of our drug discovery efforts and other research and development activities;
- > the potential benefits of our product candidates over other therapies;
- > our ability to market, commercialize and achieve market acceptance for any of our product candidates that we are developing or may develop in the future;
- > clinical trial results;
- > the terms and timing of regulatory approvals; and
- > the expense of filing, prosecuting, defending and enforcing patent claims and other intellectual property rights.

A change in the outcome of any of these variables with respect to the development of a product candidate could mean a significant change in the costs and timing associated with the development of that product candidate. For example, if the FDA or other regulatory authority were to require us to conduct clinical trials beyond those which we currently anticipate will be required for the completion of clinical development of a product candidate or if we experience significant delays in enrollment in any clinical trials, we could be required to expend significant additional financial resources and time on the completion of clinical development.

General and administrative expenses

General and administrative expenses consist primarily of salaries and related costs for personnel, including stock-based compensation expense, in our executive, finance and business development functions. Other general and administrative expenses include allocated facility costs and professional fees for legal, patent, investor and public relations, consulting and accounting services.

We anticipate that our general and administrative expenses will increase in future periods to support increases in our research and development activities and as a result of increased headcount, expanded infrastructure, increased legal, compliance, accounting and investor and public relations expenses associated with being a public company and increased insurance premiums, among other factors.

Interest income

Prior to September 30, 2011, our cash and cash equivalents were invested in non-interest-bearing accounts. As a result, we have not earned any interest through September 30, 2011. We expect interest income to increase in future periods as we invest the proceeds from our series B and series C preferred stock financings.

Accretion of preferred stock

Our preferred stock is redeemable beginning in 2016 at its original issue price plus any declared but unpaid dividends upon a specified vote of the preferred stockholders. Accretion of preferred stock reflects the periodic accretion of issuance costs on our preferred stock to its redemption value.

CRITICAL ACCOUNTING POLICIES AND SIGNIFICANT JUDGMENTS AND ESTIMATES

Our management's discussion and analysis of our financial condition and results of operations is based on our financial statements, which we have prepared in accordance with U.S. generally accepted

Management's discussion and analysis of financial condition and results of operations

accounting principles. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities and expenses and the disclosure of contingent assets and liabilities in our financial statements. On an ongoing basis, we evaluate our estimates and judgments, including those related to accrued expenses and stock-based compensation described in greater detail below. We base our estimates on our limited historical experience, known trends and events and various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

Our significant accounting policies are described in more detail in the notes to our financial statements appearing at the end of this prospectus. However, we believe that the following accounting policies are the most critical to aid you in fully understanding and evaluating our financial condition and results of operations.

Accrued research and development expenses

As part of the process of preparing our financial statements, we are required to estimate our accrued expenses. This process involves reviewing quotations and contracts, 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 cost. The majority of our service providers invoice us monthly in arrears for services performed or when contractual milestones are met. We make estimates of our accrued expenses as of each balance sheet date in our financial statements based on facts and circumstances known to us at that time. We periodically confirm the accuracy of our estimates with the service providers and make adjustments if necessary. The significant estimates in our accrued research and development expenses include fees paid to CROs in connection with research and development activities for which we have not yet been invoiced.

We base our expenses related to CROs on our estimates of the services received and efforts expended pursuant to quotes and contracts with CROs that conduct research and development on our behalf. The financial terms of these agreements are subject to negotiation, vary from contract to contract and may result in uneven payment flows. There may be instances in which payments made to our vendors will exceed the level of services provided and result in a prepayment of the research and development expense. In accruing service fees, we estimate the time period over which services will be performed and the level of effort to be expended in each period. If the actual timing of the performance of services or the level of effort varies from our estimate, we adjust the accrual or prepaid accordingly. Although we do not expect our estimates to be materially different from amounts actually incurred, our understanding of the status and timing of services performed relative to the actual status and timing of services performed may vary and could result in us reporting amounts that are too high or too low in any particular period.

Stock-based compensation

As we continue to expand our headcount, we expect to make additional stock option and restricted stock grants, which will result in additional stock-based compensation expense. Accordingly, we describe below the methodology we have employed to date in measuring such expenses. Following the consummation of this offering, stock option values will be determined based on the market price of our common stock.

Management's discussion and analysis of financial condition and results of operations

Since our inception in August 2010, we have applied the fair value recognition provisions of Financial Accounting Standards Board Accounting Standards Codification Topic 718, *Compensation-Stock Compensation*, which we refer to as ASC 718. Determining the amount of stock-based compensation to be recorded requires us to develop estimates of the fair value of stock options as of their grant date. Stock-based compensation expense is recognized ratably over the requisite service period, which in most cases is the vesting period of the award. Calculating the fair value of stock-based awards requires that we make highly subjective assumptions. We use the Black-Scholes option pricing model to value our stock option awards. Use of this valuation methodology requires that we make assumptions as to the volatility of our common stock, the expected term of our stock options, the risk free interest rate for a period that approximates the expected term of our stock options and our expected dividend yield. Because we are a privately-held company with a limited operating history, we utilize data from a representative group of companies to estimate expected stock price volatility. We selected companies from the biopharmaceutical industry with similar characteristics to us, including early stage of product development and therapeutic focus. We use the simplified method as prescribed by the Securities and Exchange Commission Staff Accounting Bulletin No. 107, *Share-Based Payment*, to calculate the expected term of stock option grants to employees as we do not have sufficient historical exercise data to provide a reasonable basis upon which to estimate the expected term of stock options granted to employees. We utilize a dividend yield of zero based on the fact that we have never paid cash dividends and have no current intention to pay cash dividends. The risk-free interest rate used for each grant is based on the U.S. Treasury yield curve in effect at the time of grant for instruments with a similar expected life.

Stock-based compensation expense associated with stock options granted to employees was insignificant for the period August 4, 2010 (inception) to December 31, 2010, and totaled \$7,000 for the nine months ended September 30, 2011. As of September 30, 2011, we had \$169,000 of total unrecognized compensation expense, net of related forfeiture estimates, which we expect to recognize over a weighted-average remaining vesting period of approximately 3.8 years. While our stock-based compensation for stock options granted to employees to date has not been material to our financial results, we expect the impact to grow in future periods due to the potential increases in the value of our common stock and headcount.

Under ASC 718, we are required to estimate the level of forfeitures expected to occur and record compensation expense only for those awards that we ultimately expect will vest. Due to the lack of historical forfeiture activity of our plan, we estimated our forfeiture rate based on data from a representative group of companies with similar characteristics to us. Through September 30, 2011, forfeitures have not been material.

The following table sets forth information with respect to stock options granted to employees since August 4, 2010 (inception).

	Number of shares underlying options granted	Exercise price per share	Common stock fair value per share on grant date
December 3, 2010	235,000	\$ 0.08	\$ 0.08
March 3, 2011	75,000	\$ 0.08	\$ 0.08
June 8, 2011	280,000	\$ 0.08	\$ 0.08
September 6, 2011	403,000	\$ 0.55	\$ 0.55
September 20, 2011	20,000	\$ 0.55	\$ 0.55

We have granted stock options at exercise prices not less than the estimated fair market value of our common stock. As there was no public market for our common stock, our board of directors

Management's discussion and analysis of financial condition and results of operations

determined the estimated fair value of our common stock, taking into consideration various objective and subjective factors, including:

- external market conditions affecting the biopharmaceutical industry;
- prices at which we sold shares of preferred stock to third-party investors;
- the superior rights and preferences of securities senior to our common stock at the time of each grant;
- our historical operating and financial performance;
- the status of our research and development efforts;
- the likelihood of achieving a liquidity event, such as an initial public offering, or IPO, or sale of our company; and
- estimates and analysis provided by management and contemporaneous valuations.

For the period from November 30, 2010 through June 30, 2011, our board of directors determined the fair value of our common stock to be \$0.08 per share. Because of the minimal value of non-cash assets owned during this period, including the early stage of our research and development efforts under our licensed rights, the superior preferences associated with our series A preferred stock in relation to our common stock and our focus on start-up activities, we attributed a nominal fair value to our common stock during this time.

We performed contemporaneous valuations of our common stock as of November 30, 2010, July 31, 2011 and September 30, 2011 in accordance with the framework of the 2004 American Institute of Certified Public Accountants Technical Practice Aid, *Valuation of Privately-Held-Company Equity Securities Issued as Compensation*, or the Practice Aid. Based on the valuation methodology selection criteria set forth in the Practice Aid, with a focus on the early stage of our development as a company, including the early stage status of our development efforts, very limited operations and the fact that we had an incomplete management team, as of November 30, 2010, we determined that an asset-based approach was the most appropriate method to use to determine the enterprise value of our company. We then allocated the enterprise value using the current value method. We concluded that this was the most appropriate method since we did not have any projections as of the valuation date due to the early stage of our research and development. As such, an income approach would not have provided a reliable fair value determination. In addition, as a result of the lack of comparative information available for publicly-traded or privately-held start-up enterprises, and because any investments in shares of stock are unlikely to be a reliable indicator of fair value at such an early stage, we concluded that the market approach would also not provide a reliable fair value determination as of this date. The results of this valuation methodology were consistent with our expectations, as we would not have expected any significant value to have been created for the common stockholders. We concluded that there were no significant transactions affecting our capital structure or significant developments in our research and development which would have indicated that an update to our valuation was required at dates until after June 30, 2011.

In July 2011, we completed our series B preferred stock financing for total net proceeds of \$31.9 million and hired our Vice President, Head of Research. Based on the significance of these transactions, we deemed it appropriate to update the valuation of our common stock as of July 31, 2011. For the period from July 31, 2011 to September 20, 2011, our board of directors determined the fair value of our common stock to be \$0.55 per share. We performed a contemporaneous valuation of our common stock as of July 31, 2011 in accordance with the framework of the Practice Aid. Based on the valuation methodology selection criteria set forth in the Practice Aid and the stage of our

Management's discussion and analysis of financial condition and results of operations

development as a company as of July 31, 2011, we determined that the option pricing method was the most appropriate valuation methodology to estimate the fair value of our common stock. Key variables in the option pricing method were as follows:

- Underlying equity value—To estimate the value of our total equity, including both common and preferred equity, we utilized the marketable equity value based on the most recent round of preferred stock financing, our series B preferred stock financing with a price of \$2.00 per share, which we believed to be the most indicative of our value. This valuation technique used to estimate the enterprise value of our company is referred to as the reverse backsolve method.
- Volatility—We estimated volatility based on guideline publicly-traded companies over a 2.0-year period.
- Time to liquidity—We estimated time to a liquidity event based on the projected time to significant clinical development events for our product candidates that we believed could lead to an IPO or sale. The estimated time to a liquidity event of 2.0 years assumed a weighted average timeline of either an IPO or sale. The IPO timeline was 1.0 year and the sale timeline was 2.25 years. The probability of an IPO was 25% and the probability of a sale was 75%.
- Risk-free interest rate—We determined the risk-free interest rate based on the yield of a U.S. Treasury bill with a maturity date closest to the estimated time to a liquidity event for our stockholders.
- Discounts for lack of marketability—Because we are a privately-held company, shares of our common stock are highly illiquid and, as such, warrant a discount in value from their estimated "marketable" price. We estimated the discount factor of 30% for illiquidity using legal guidelines from U.S. Tax Court cases regarding privately-held business valuations, fundamental business factors and empirical studies on the discount for lack of marketability. We corroborated the discount factor based on the value of a put option compared to the value of common stock using a Black-Scholes option pricing model. We also considered that our preferred stock has rights that our common stock does not have, including anti-dilution protection, redemption rights, protective provisions in our certificate of incorporation and rights to participate in future rounds of financing. Our preferred stockholders have control and influence over the enterprise, which provides them with the optionality over future liquidity, financing and other decisions that the common stock optionholders do not control.

For our valuation as of July 31, 2011, we assumed a weighted-average two-year time to a liquidity event based on a probability-weighted analysis of the time to a liquidity event under an IPO scenario and several sale scenarios. Our estimates were supported by our belief that we would have multiple product candidates in clinical trials in mid-2013. At that time, we believed that an IPO or other liquidity event could occur in anticipation of the availability of those data.

We updated the valuation of our common stock again on September 30, 2011, which resulted in a fair value of \$1.52 per share. As of September 30, 2011, we concluded that a liquidity event was possible within six months due to the fact that we had selected investment bankers and initiated the initial process of preparing to file a registration statement for an IPO. We also believed that a sale was equally likely to occur after the availability of the clinical data from our initial clinical trial, which was still expected within two years of the valuation date. We calculated valuations using both liquidity event assumptions and equally weighted the results to estimate the fair value of our common stock. We believed that an equal weight applied to both scenarios was appropriate based upon our assessment of the probability of each scenario occurring, acknowledging market risks and other factors that might impact our ability to complete an IPO.

Management's discussion and analysis of financial condition and results of operations

In the IPO scenario, we assumed all of our preferred shares would convert into common stock and the present value of the future projected enterprise value was based on the value of the anticipated series C preferred stock financing at \$2.25 per share, which was contemplated as of the valuation date. There was no discount for lack of marketability applied to the IPO scenario. The estimated time to complete an IPO was six months.

For the sale scenario, we utilized the option pricing method and key assumptions were as follows:

- Underlying equity value—To estimate the value of our total equity, including both common and preferred equity, we utilized the marketable equity value based on the anticipated closing of the series C preferred stock financing, which we believed to be the most indicative of our value. This financing closed in November 2011 and was led by previously unrelated investors.
- Volatility—We estimated volatility based on guideline publicly-traded companies over a 2.25-year period.
- Time to liquidity—We estimated a weighted-average time to a sale event of 2.25 years based on the projected time to significant clinical development events for our product candidates.
- Risk-free interest rate—We determined the risk-free interest rate based on the yield of a U.S. Treasury bill with a maturity date closest to the estimated time to a sale event for our stockholders.
- Discounts for lack of marketability—Because we are a privately-held company, shares of our common stock are highly illiquid and, as such, warrant a discount in value from their estimated "marketable" price. We estimated the discount factor of 15% for illiquidity using legal guidelines from U.S. Tax Court cases regarding privately-held business valuations, fundamental business factors, and empirical studies on the discount for lack of marketability. We corroborated the discount factor based on the value of a put option compared to the value of common stock using a Black-Scholes option pricing model.

The primary reason for the lower fair value per share of our common stock in comparison to the fair value per share of our preferred stock on each valuation date was the value of the superior rights and preferences associated with the preferred stock, the most significant of which are the liquidation rights held by the preferred stockholders.

There are significant judgments and estimates inherent in the determination of these valuations. These judgments and estimates include assumptions regarding our future performance, including the successful completion of our preclinical studies and clinical trials and the time to completing an IPO or sale, as well as the determination of the appropriate valuation methods at each valuation date. If we had made different assumptions, our stock-based compensation expense could have been different. The foregoing valuation methodologies are not the only methodologies available and they will not be used to value our common stock once this offering is complete. Accordingly, investors are cautioned not to place undue reliance on the foregoing valuation methodologies as an indicator of our future stock price.

RESULTS OF OPERATIONS

We were incorporated on August 4, 2010. As a result, our results of operations reflect the period from August 4, 2010 (inception) to December 31, 2010 and the nine month period ended September 30, 2011. There is no comparable period for 2010.

Management's discussion and analysis of financial condition and results of operations

Discussion of the nine month period ended September 30, 2011

Research and development expenses. Research and development expenses were \$5.5 million for the nine month period ended September 30, 2011. Expenses during the period included:

- Contract research organization expenses of \$2.2 million, representing 40% of total research and development expenses during the period, comprised of expenses for outsourced biology, chemistry and development services.
- Consulting fees of \$898,000, representing 16% of total research and development expenses during the period, including \$352,000 for our scientific advisory board, \$232,000 for recruitment consultants and \$106,000 for database consultants.
- Payroll expense of \$820,000, representing 15% of total research and development expenses during the period, including salaries, payroll taxes and benefits for our employees in research and development. We had 11 employees in research and development at September 30, 2011. Payroll expense also included stock-based compensation expense for employees of \$19,000.
- Laboratory supply expense of \$687,000, representing 13% of total research and development expenses during the period.
- Non-employee stock-based compensation expense of \$417,000, representing 8% of total research and development expenses during the period, related to stock options and restricted stock awarded to members of our scientific advisory board.
- Occupancy expense of \$327,000, representing 6% of total research and development expenses during the period, which is an allocated portion of rent and other occupancy costs.

General and administrative expenses. General and administrative expenses were \$2.2 million for the nine month period ended September 30, 2011. Expenses during the period included:

- Payroll expense of \$908,000, representing 42% of total general and administrative expenses during the period, including salaries, payroll taxes and benefits for our general and administrative employees. Payroll expense included stock-based compensation expense for employees of \$3,000.
- Consulting fees of \$365,000, representing 17% of total general and administrative expenses during the period, including business development, public relations and finance consultants.
- Professional fee expense of \$302,000, representing 14% of total general and administrative expenses during the period, comprised of fees for audit, tax and legal services, including the reimbursement to the Whitehead Institute of patent costs related to our licenses with the Whitehead Institute.
- Non-employee stock-based compensation expense of \$302,000, representing 14% of total general and administrative expenses during the period, related to restricted stock awarded to our co-founders.
- Occupancy expense of \$164,000, representing 7% of total general and administrative expenses during the period, which is an allocated portion of rent and other occupancy costs.
- Travel expense of \$135,000, representing 6% of total general and administrative expenses during the period, including travel, meals, entertainment and conferences.

Accretion of preferred stock. We recorded \$18,000 of accretion in the nine month period ended September 30, 2011 reflecting the periodic accretion of issuance costs associated with our series A and series B preferred stock.

Management's discussion and analysis of financial condition and results of operations

Discussion of the period from August 4, 2010 (inception) to December 31, 2010

Research and development expenses. Research and development expenses were \$400,000 for the period from August 4, 2010 (inception) to December 31, 2010. Expenses during the period included:

- License fee expense of \$182,000, representing 46% of total research and development expenses during the period, comprised of fees for our exclusive and non-exclusive licenses, as well as the fair value of common stock that we issued to the Whitehead Institute in connection with our exclusive license.
- Consulting fees of \$137,000, representing 34% of total research and development expenses during the period, primarily for our scientific advisory board.
- Contract research organization expenses of \$42,000, representing 11% of total research and development expenses during the period, including expenses for outsourced biology and chemistry.
- Non-employee stock-based compensation expense of \$24,000, representing 6% of total research and development expenses during the period, related to stock options and restricted stock awarded to members of our scientific advisory board.
- Laboratory supply expense of \$13,000, representing 3% of total research and development expenses during the period.

General and administrative expenses. General and administrative expenses were \$384,000 for the period from August 4, 2010 (inception) to December 31, 2010. Expenses during the period included:

- Professional fee expense of \$182,000, representing 47% of total general and administrative expenses during the period, comprised of fees for audit, tax and legal services, including the reimbursement to the Whitehead Institute of patent costs related to our exclusive license with the Whitehead Institute.
- Payroll expense of \$96,000, representing 25% of total general and administrative expenses during the period, including salaries, payroll taxes and benefits for our general and administrative employees. Stock-based compensation expense was not material to the financial statements.
- Occupancy expense of \$36,000, representing 9% of total general and administrative expenses during the period, which is an allocated portion of rent and other occupancy costs.
- Non-employee stock-based compensation expense of \$28,000, representing 7% of total general and administrative expenses during the period, related to restricted stock awarded to our co-founders.
- Consulting fees of \$26,000, representing 7% of total general and administrative expenses during the period, including business development, public relations and information technology consultants.
- Travel expense of \$16,000, representing 4% of total general and administrative expenses during the period, including travel, meals, entertainment and conferences.

Accretion of preferred stock. We recorded \$2,000 of accretion in the period from August 4, 2010 (inception) to December 31, 2010 reflecting the periodic accretion of issuance costs associated with our series A and series B preferred stock.

Management's discussion and analysis of financial condition and results of operations**LIQUIDITY AND CAPITAL RESOURCES****Sources of liquidity**

To date, we have not generated any revenues. We have financed our operations to date through private placements of our preferred stock. As of September 30, 2011, we had received \$47.9 million in net proceeds from the issuance of preferred stock. As of September 30, 2011, we had cash and cash equivalents totaling \$41.4 million. In November 2011, we received proceeds of \$20.1 million from the issuance of our series C preferred stock. We primarily invest our cash and cash equivalents in a U.S. Treasury money market fund.

Cash flows

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

<u>(in thousands)</u>	<u>Period from August 4, 2010 (inception) to December 31, 2010</u>	<u>Nine months ended September 30, 2011</u>
Net cash used in operating activities	\$ (330)	\$ (5,298)
Net cash used in investing activities	(8)	(840)
Net cash provided by financing activities	3,922	43,975
Net increase in cash and cash equivalents	<u>\$ 3,584</u>	<u>\$ 37,837</u>

Operating activities. The use of cash in all periods resulted primarily from our net losses adjusted for non-cash charges and favorable changes in the components of working capital. The significant increase in cash used in operating activities for the nine month period ended September 30, 2011 compared to the period from August 4, 2010 (inception) to December 31, 2010 is due to an increase in research and development expenses as we increased our research and development headcount, increased spending on external research and development costs and increases in the balance of accounts payable, accrued expenses and deferred rent. In addition, we commenced operations in August 2010 and, as such, the period ended December 31, 2010 reflects only five months of activity. We expect cash used in operating activities to continue to increase for the foreseeable future as we fund our increased research and development activities.

Investing activities. The cash used in investing activities for all periods reflects the purchases of property and equipment. The majority of such purchases in the nine month period ended September 30, 2011 were for laboratory equipment. In addition, during the nine month period ended September 30, 2011, investing activities included an \$86,000 increase in restricted cash related to a standby letter of credit issued as a security deposit for our facility lease.

Financing activities. The cash provided by financing activities in the nine month period ended September 30, 2011 is the result of the sale and issuance of 12,000,000 shares of our series A preferred stock for net proceeds of \$12.0 million, the sale and issuance of 16,025,000 shares of our series B preferred stock for net proceeds of \$31.9 million and \$38,000 of net proceeds from the sale of restricted stock to employees. The cash provided by financing activities in the period from August 4, 2010 (inception) to December 31, 2010 is primarily the result of the sale and issuance of 4,000,000 shares of our series A preferred stock for net proceeds of \$3.9 million.

Management's discussion and analysis of financial condition and results of operations

Funding requirements

All of our product candidates are still in preclinical development. We expect to continue to incur significant expenses and increasing operating losses for the foreseeable future. We anticipate that our expenses will increase substantially if and as we:

- continue our research and preclinical development of our product candidates;
- seek to identify additional product candidates that target cancer stem cells;
- acquire or in-license other products and technologies;
- initiate clinical trials for our product candidates;
- seek marketing approvals for our product candidates that successfully complete clinical trials;
- ultimately establish a sales, marketing and distribution infrastructure to commercialize any products for which we may obtain marketing approval;
- maintain, expand and protect our intellectual property portfolio;
- hire additional clinical, quality control and scientific personnel; and
- add operational, financial and management information systems and personnel, including personnel to support our product development and planned future commercialization efforts.

We expect that the net proceeds from this offering, together with our existing cash and cash equivalents, including the \$20.1 million in proceeds from the issuance and sale of our series C preferred stock in November 2011, will enable us to fund our operating expenses and capital expenditure requirements for at least . We have based this estimate on assumptions that may prove to be wrong, and we could use our available capital resources sooner than we currently expect. Because of the numerous risks and uncertainties associated with the development and commercialization of our product candidates, and the extent to which we may enter into collaborations with third parties for development and commercialization of our product candidates, we are unable to estimate the amounts of increased capital outlays and operating expenses associated with completing the development of our current product candidates. Our future capital requirements will depend on many factors, including:

- the scope, progress, results and costs of compound discovery, preclinical development, laboratory testing and clinical trials for our product candidates;
- the extent to which we acquire or in-license other products and technologies;
- the costs, timing and outcome of regulatory review of our product candidates;
- the costs of future commercialization activities, including product sales, marketing, manufacturing and distribution, for any of our product candidates for which we receive marketing approval;
- revenue, if any, received from commercial sales of our product candidates, should any of our product candidates receive marketing approval;
- the costs of preparing, filing and prosecuting patent applications, maintaining and enforcing our intellectual property rights and defending intellectual property-related claims; and
- our ability to establish collaborations on favorable terms, if at all.

Management's discussion and analysis of financial condition and results of operations

Until such time, if ever, as we can generate substantial product revenues, we expect to finance our cash needs through a combination of equity offerings, debt financings, collaborations, strategic alliances and licensing arrangements. We do not have any committed external source of funds. To the extent that we raise additional capital through the sale of equity or convertible debt securities, the ownership interest of our stockholders will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect your rights as a common stockholder. Debt financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends. If we raise additional funds through collaborations, strategic alliances or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies, future revenue streams, research programs or product candidates or grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds through equity or debt financings when needed, we may be required to delay, limit, reduce or terminate our product development or future commercialization efforts or grant rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves.

CONTRACTUAL OBLIGATIONS AND COMMITMENTS

The following table summarizes our contractual obligations at September 30, 2011.

(in thousands)	Total	Remainder of 2011	2012-2013	2014-2015	Beyond 2015
Operating lease obligations	\$ 1,104	\$ 86	\$ 710	\$ 308	—
License agreements ⁽¹⁾	—	—	—	—	—

(1) As discussed in Note 10 to the financial statements appearing at the end of this prospectus, we have executed several agreements to license intellectual property. The license agreements require us to pay upfront license fees and ongoing annual license maintenance fees, totaling a minimum of \$95,000 per year beginning in 2012 up to a maximum amount of \$170,000 per year beginning in 2015, as well as reimburse certain patent costs previously incurred by the licensors. We have not included maintenance fees beyond the remainder of 2011 in the table above since the minimum annual payments are perpetual and the agreements are cancelable by us at any time upon 90 days' prior written notice to the licensor. Amounts for 2011 were paid prior to September 30, 2011.

Under our exclusive license agreement with the Whitehead Institute, we also have agreed to make milestone payments to the Whitehead Institute upon achieving various development, regulatory and commercialization milestones. For each licensed product, we agreed to make milestone payments of up to an aggregate of \$1,560,000 plus an additional amount for each subsequent approval of additional indications for a maximum number of licensed products. For each identified product that is not a licensed product, we agreed to make milestone payments of up to an aggregate of \$815,000 plus an additional amount for each subsequent approval of additional indications for a maximum number of identified products. Each type of specified milestone payment is payable only for each of the maximum number of licensed products and the maximum number of identified products, as the case may be, to achieve the applicable milestone. In addition, a separate milestone payment is due upon the first commercial sale of each licensed product or identified product that is a diagnostic or prognostic test. A single additional milestone payment is due for the first issuance of licensed patent rights in the United States, the United Kingdom, France, Germany, Spain or Italy. In addition, we have agreed to pay the Whitehead Institute royalties as a percentage of net sales of licensed products. The royalty rate is in the low single digits as a percentage of net sales for licensed products that are therapeutics, the mid single digits for licensed products that are diagnostics or prognostics and less than one percent for identified products.

Management's discussion and analysis of financial condition and results of operations

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 under Securities and Exchange Commission rules.

TAX LOSS CARRYFORWARDS

As of December 31, 2010, we had federal net operating loss carryforwards of \$570,000 and state net operating loss carryforwards of \$578,000, which are available to reduce future taxable income. We also had federal tax credits of \$15,000 and state tax credits of \$5,000, which may be used to offset future tax liabilities. The net operating loss and tax credit carryforwards will expire at various dates through 2030. Net operating loss and tax credit carryforwards are subject to review and possible adjustment by the Internal Revenue Service and state tax authorities and may become subject to an annual limitation in the event of certain cumulative changes in the ownership interest of significant shareholders over a three-year period in excess of 50%, as defined under Sections 382 and 383 of the Internal Revenue Code, as well as similar state provisions. This could limit the amount of tax attributes that can be utilized annually to offset future taxable income or tax liabilities. The amount of the annual limitation is determined based on the value of our company immediately prior to the ownership change. Subsequent ownership changes may further affect the limitation in future years. At December 31, 2010, we recorded a 100% valuation allowance against our net operating loss and tax credit carryforwards of approximately \$320,000, as we believe it is more likely than not that the tax benefits will not be fully realized. In the future, if we determine that a portion or all of the tax benefits associated with our tax carryforwards will be realized, net income would increase in the period of determination.

QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISKS

We are exposed to market risk related to changes in interest rates. We had cash and cash equivalents of \$3.6 million as of December 31, 2010 and \$41.4 million as of September 30, 2011, consisting of cash and money market funds. Our primary exposure to market risk is interest rate sensitivity, which is affected by changes in the general level of U.S. 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 100 basis point change in interest rates would not have a material effect on the fair market value of our portfolio.

We contract with CROs and contract manufacturers globally. We may be subject to fluctuations in foreign currency rates in connection with these agreements. Transactions denominated in currencies other than the functional currency are recorded based on exchange rates at the time such transactions arise. As of September 30, 2011, approximately \$36,000 of our total liabilities were denominated in currencies other than the functional currency. As of December 31, 2010, all of our liabilities were denominated in our functional currency.

RECENTLY ADOPTED ACCOUNTING STANDARDS

We have not recently adopted any new accounting standards. There are no recently issued accounting standards that have a material impact on us.

Business

OVERVIEW

We are a biopharmaceutical company focused on discovering and developing proprietary small molecule drugs targeting cancer stem cells in breast and other cancers along with proprietary companion diagnostics. A cancer stem cell is a particularly aggressive type of tumor cell, resistant to conventional cancer therapy, that we believe is an underlying cause of tumor recurrence and metastasis. Our scientific co-founders, Robert Weinberg, Ph.D., Eric Lander, Ph.D., and Piyush Gupta, Ph.D., have made discoveries that link the epithelial-to-mesenchymal transition, or EMT, to the emergence of cancer stem cells. This transition involves the transformation of one type of cancer cell into a more aggressive and drug resistant type of cancer cell. Building on these discoveries, our scientific co-founders developed proprietary technology to create a stable population of cancer stem cells that we use to screen for and identify small molecule compounds that target cancer stem cells. We expect to file an investigational new drug application, or IND, with the U.S. Food and Drug Administration, or FDA, in late 2012 to initiate a Phase 1 clinical trial of our most advanced drug candidate, VS-507.

Cancer is a group of diseases characterized by uncontrolled growth and spread of abnormal cells. The American Cancer Society estimates that in the United States in 2011, approximately 1.6 million new cases of cancer will be diagnosed and nearly 600,000 people will die from the disease. Current treatments for cancer include surgery, radiation therapy, chemotherapy, hormone therapy and targeted therapy. According to estimates by the National Institutes of Health, in the United States in 2010, the direct medical costs of cancer of all types exceeded \$100 billion. IMS Health estimates that in the United States in 2010, approximately \$22 billion was spent on drugs to treat cancer, representing the largest class of drug spending in the United States. Despite years of intensive research and clinical use, current treatments often fail to cure cancer.

We believe that a key reason for the ultimate failure of many current therapies to achieve a durable clinical response may be the presence of cancer stem cells, or CSCs, which are also sometimes referred to as tumor-initiating cancer cells, within tumors. CSCs have been identified in many types of cancer, including breast, pancreatic, colon, brain, lung and leukemia. Following many cancer treatments, the tumor can remain with a high percentage of CSCs and become more aggressive and resistant to further treatment. In addition, patients who relapse often develop metastatic disease in which the cancer spreads to other sites in the body. Tumor metastasis to critical organs is the cause of more than 90% of cancer deaths. We believe that it is the drug resistance and ability of CSCs to spread to other sites in the body that may be the root causes of these failed therapies. Accordingly, our mission is to develop drugs targeting CSCs that either in combination with other cancer treatments or alone can kill all of the cells comprising a tumor and, thus, create a durable clinical response.

We license our EMT technology from the Whitehead Institute for Biomedical Research, an affiliate of the Massachusetts Institute of Technology, or MIT. We also have a first right to negotiate a license for additional related intellectual property from the Broad Institute, an affiliate of MIT and Harvard University. Using our proprietary technology, we can create a stable population of CSCs in the laboratory for use in rapid and automated assays, referred to as high-throughput screening, to enable discovery of novel drugs targeting these CSCs. We are using our discovery approach to identify a pipeline of small molecule compounds with the potential to target CSCs.

Our most advanced product candidate is the small molecule VS-507. We are currently evaluating VS-507 in preclinical studies as a potential therapy for breast cancer. We believe that VS-507 may be especially beneficial as a therapeutic in aggressive cancers with a high percentage of CSCs, such as triple negative breast cancer, or TNBC. TNBC is a type of breast cancer in which a high percentage of CSCs have been identified and that has a poorer prognosis and lower overall survival rate than other

types of breast cancer. Using our EMT technology, our scientific co-founders identified VS-507 as a drug candidate for killing breast CSCs. Their research on VS-507, which included an analysis of the effect of VS-507 on cell lines derived from TNBC, was published in the peer reviewed scientific journal *Cell* in 2009. Recently published third-party research has reported that VS-507's activity may be mediated through the blockade of the Wnt/beta-catenin cell signaling pathway, a network of proteins that Dr. Weinberg described in 2011 in *Cell* as critical for the development and maintenance of CSCs. In mouse models of breast cancer, VS-507 treatment decreased biophysical or biochemical markers, referred to as biomarkers, of CSCs. In contrast, treatment in the same model with a standard chemotherapeutic agent, paclitaxel, increased biomarkers of CSCs.

An important element of our business strategy is the development and use of proprietary, companion diagnostics in connection with the development of our therapeutic drug candidates. We plan to use these diagnostics as part of a personalized medicine approach to identify patients with aggressive cancers that have a high percentage of CSCs, which is the group that we believe will benefit most from our therapies. We also believe that these diagnostics may be used to monitor patients' progress on therapy and aid physicians' ongoing treatment decisions.

OUR MANAGEMENT TEAM AND SCIENTIFIC CO-FOUNDERS AND ADVISORS

Our experienced management team includes our Chief Executive Officer, Chairman and co-founder Christoph Westphal, M.D., Ph.D., our Chief Operating Officer, Robert Forrester, and our Vice President, Head of Research, Jonathan Pachter, Ph.D. Dr. Westphal has been involved in founding a number of biotechnology companies as chief executive officer, including Sirtris Pharmaceuticals, Inc., which was acquired by GlaxoSmithKline plc in 2008, as well as Alnylam Pharmaceuticals, Inc. and Momenta Pharmaceuticals, Inc. Dr. Westphal also co-founded Alnara Pharmaceuticals, Inc., which was acquired by Eli Lilly and Co. in 2010. Mr. Forrester has been the chief executive officer, chief operating officer and chief financial officer of both private and public life science companies, including Forma Therapeutics, Inc., CombinatoRx, Inc., now Zalicus Inc., and Coley Pharmaceutical Group, Inc., which was acquired by Pfizer Inc. in 2007. Dr. Pachter has over 20 years of experience in leading the discovery of small molecule and monoclonal antibody therapeutics for the treatment of cancer, most recently as the Senior Director of Cancer Biology at OSI Pharmaceuticals Inc., which was acquired by Astellas Pharma Inc. in 2010.

Our scientific co-founders are recognized leaders in the field of cancer biology. Robert Weinberg, Ph.D., Founding Member of the Whitehead Institute and Professor of Biology at MIT, has played a key role in identifying the genetic basis of cancer. Dr. Weinberg discovered the first tumor oncogene, the first tumor suppressor gene, the role of a protein related to the cell surface receptor HER2 in preclinical studies and the mechanisms underlying the formation of CSCs. Eric Lander, Ph.D., Founding Director of the Broad Institute, Professor of Biology at MIT and Professor of Systems Biology at Harvard Medical School, played a central role in the Human Genome Project. Piyush Gupta, Ph.D., Member of the Whitehead Institute and Assistant Professor of Biology at MIT, co-developed with Dr. Lander and Dr. Weinberg our proprietary EMT technology for use in the identification of drugs targeting CSCs and a genetic expression signature, useful as a biomarker, to monitor the effect of treatment.

Business

Our management team is supported by our scientific advisory board comprised of leading academic and industry scientists. Our scientific advisory board consists of:

Scientific advisory board

Robert Weinberg, Ph.D. <i>Scientific co-founder</i>	Founding Member of the Whitehead Institute for Biomedical Research, Professor of Biology at the Massachusetts Institute of Technology and recipient of the 1997 National Medal of Science
Eric Lander, Ph.D. <i>Scientific co-founder</i>	Founding Director of the Broad Institute, Professor of Biology at the Massachusetts Institute of Technology and Professor of Systems Biology at Harvard Medical School
Piyush Gupta, Ph.D. <i>Scientific co-founder</i>	Member of the Whitehead Institute for Biomedical Research and Assistant Professor of Biology at the Massachusetts Institute of Technology
Julian Adams, Ph.D.	President of Research and Development of Infinity Pharmaceuticals, Inc., former Senior Vice President of Drug Discovery and Development of Millennium Pharmaceuticals, Inc. and co-inventor and co-developer of Velcade
José Baselga, M.D., Ph.D.	Chief of Hematology and Oncology at Massachusetts General Hospital, Associate Director of the Massachusetts General Hospital Cancer Center and Professor of Medicine at Harvard Medical School
George Daley, M.D., Ph.D.	Professor of Hematology and Oncology and Director of the Stem Cell Transplantation Program at Children's Hospital and Professor of Biological Chemistry and Molecular Pharmacology at Harvard Medical School
Peter Elliott, Ph.D.	Former Senior Vice President and Head of Research and Development of Sirtris Pharmaceuticals, Inc., former Vice President of Pharmacology and Drug Development of Millennium Pharmaceuticals, Inc. and co-developer of Velcade
Daniel Haber, M.D., Ph.D.	Director of the Massachusetts General Hospital Cancer Center and Professor of Medicine at Harvard Medical School
Joseph (Yossi) Schlessinger, Ph.D.	Chairman and Professor in the Department of Pharmacology at Yale School of Medicine
Phillip A. Sharp, Ph.D.	Institute Professor at the David H. Koch Institute for Integrative Cancer Research at the Massachusetts Institute of Technology and recipient of the 1993 Nobel Prize in Medicine and Physiology
Roger Tung, Ph.D.	President and Chief Executive Officer of Concert Pharmaceuticals, Inc., former Vice President of Drug Discovery of Vertex Pharmaceuticals, Inc. and co-inventor of Lexiva and Agenerase

Business**Scientific advisory board**

Christopher Walsh, Ph.D.	Hamilton Kuhn Professor in the Department of Biological Chemistry and Molecular Pharmacology at Harvard Medical School
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Eric Winer, M.D.	Director of the Breast Oncology Center at the Dana Farber Cancer Institute and Professor of Medicine at Harvard Medical School
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THE PROBLEM

The cancer death rate in the United States has only decreased modestly since the early 1990s. Cancer remains one of the world's most serious health problems and is the second most common cause of death in the United States after heart disease. The American Cancer Society estimates that in the United States in 2011, approximately 1.6 million new cases of cancer will be diagnosed and nearly 600,000 people will die from the disease. According to estimates by the National Institutes of Health, in the United States in 2010, the direct medical cost of cancer of all types exceeded \$100 billion and the cancer type responsible for the highest individual disease costs was breast cancer at \$16.5 billion. The following table sets forth the U.S. annual incidence, based on 2011 estimates from the American Cancer Society, and the prevalence, or the number of people in the United States who have been previously diagnosed with cancer, based on 2010 estimates from the National Cancer Institute, for select cancers in which CSCs have been implicated.

Cancer type	U.S. annual incidence	U.S. prevalence
Breast	230,480	2,645,621
Lung and bronchus	221,130	373,489
Colorectal	141,210	1,110,077
Leukemia	44,600	253,350
Pancreatic	44,030	34,657
Brain and other nervous system cancers	22,340	128,193

For tumors that have not yet metastasized and remain localized to the site of original tumor formation, current treatments for cancer can be effective in initially reducing tumor burden. However, for many forms of cancer, current treatments lack sufficient efficacy to achieve a durable clinical response. Following initial treatment, the tumor may recur at the same site or metastasize and spread to other sites in the body. The vast majority of patients who succumb to cancer are killed by tumors that have metastasized. This is illustrated by the information in the following table, which shows, according to the National Cancer Institute's *SEER Cancer Statistics Review, 2001-2007*, the reduction in five-year survival rate for breast cancer patients based on the stage of the disease at the time at which the disease is diagnosed. The percentage of patients diagnosed at each stage of disease, referred to as stage distribution, is included below for comparative purposes.

Breast cancer stage at diagnosis	Stage distribution⁽¹⁾	Five-year relative survival rate
Localized (confined to primary site)	60%	98.6%
Regional (spread to regional lymph nodes)	33%	83.8%
Distant (cancer has metastasized)	5%	23.4%

(1) 2% of breast cancer cases were designated as unknown stage.

With the application of new technologies and key discoveries, we believe that we are now entering an era of cancer research characterized by a more sophisticated understanding of the biology of cancer. We believe that the discovery of CSCs and the role that they play in cancer development are important new insights that present the opportunity to develop more effective treatments.

Epithelial-to-mesenchymal transition

In most solid tumors, the cells that make up the tissue mass have a characteristic epithelial appearance. Epithelial cells generally have a multi-sided, uniform shape. Epithelial cells also have well-defined contact points with neighboring cells and a strong attachment to the underlying connective tissue that creates a framework for solid tumors in the body. Epithelial cells generally lack the ability to separate from these connection points to move, invade or metastasize into surrounding tissue or other sites in the body.

Epithelial cells can undergo a transformation to a different cell type, called mesenchymal cells, through a process called epithelial-to-mesenchymal transition, or EMT. In contrast with epithelial cells, mesenchymal cells have an elongated spindle shape, lack orderly contacts with neighboring cells and can survive without contact with a surface or connective tissue. The EMT process is a series of reprogramming events that normally operates during the development of tissues and organs prior to birth. However, the EMT process also can be appropriated by epithelial cancer cells that are referred to as carcinoma cells. When epithelial carcinoma cells residing in a solid tumor undergo the EMT process, the resulting mesenchymal cancer cells have the capability to invade through local barriers and metastasize to other sites in the body.

Another consequence of epithelial carcinoma cells undergoing the EMT process is that the resulting mesenchymal cancer cells have significantly increased resistance to current cancer treatments. Retrospective analyses of data from two Phase 3 clinical trials in lung cancer, one published in *Clinical Cancer Research* in 2005 and the other presented at the 2009 World Conference on Lung Cancer, revealed that patients with high expression of epithelial biomarkers responded better to the anti-cancer drug Tarceva in terms of both progression-free survival and overall survival than patients in the same two trials with low levels of epithelial biomarkers in their tumors. These results suggest that the mesenchymal cancer cell population, which lacks epithelial biomarkers, is resistant to these therapies. These clinical observations are consistent with preclinical studies published in *Cancer Research* in 2005 reporting that lung cancer cells expressing mesenchymal biomarkers appeared to be resistant to Tarceva and other targeted anti-cancer agents when transplanted into mice.

Cancer stem cells

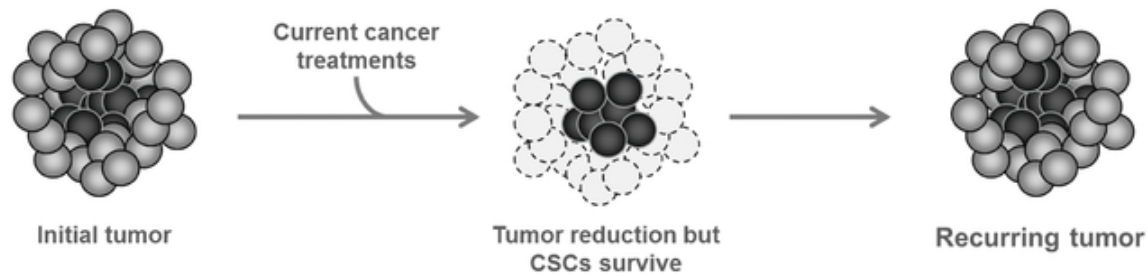
We believe that CSCs, which are sometimes referred to as tumor-initiating cancer cells, are responsible for the initiation, metastasis and recurrence of many cancers. CSCs have the ability to:

- move freely and proliferate without attachment to other cells or surfaces;
- initiate a tumor;
- self-renew;
- produce other cancer cell types; and
- resist many current cancer treatments.

CSCs are often characterized by a distinctive set of biomarkers, which we believe may be a key to identifying patients with tumors that are likely to respond to therapies targeting CSCs.

CSCs may be more resistant to current cancer treatments than other types of cancer cells. Thus, as illustrated in the figure below, while current treatments may succeed at initially decreasing tumor burden, they may leave behind a population of CSCs that can regenerate tumors. Therefore, the presence of a mixture of CSCs and other types of cancer cells within a tumor may necessitate a therapeutic approach combining drugs that can kill both cell populations.

The problem:



The need to target CSCs may apply across the treatment of a broad range of cancers. CSCs have been isolated and characterized from many types of cancer, including breast, pancreatic, colon, brain, lung and leukemia. The CSCs isolated from each of these tumor types have been found to confer greater tumor-forming capability when transplanted into mice than other types of cancer cells from the same tumor.

Several specific signaling pathways have been implicated in CSC biology. The combined action *in vitro* of the TGF-beta and Wnt signaling pathways in the formation of CSCs was described by Dr. Weinberg in *Cell* in 2011. Separately, Focal Adhesion Kinase, a protein which is involved in cell adhesion and motility, has been found to increase the metastatic capability of breast cancer cells following the EMT process.

CSCs from breast cancer have been characterized in several studies. For example, in a study conducted at the Baylor College of Medicine, breast cancer biopsies were taken from patients at the time of initial diagnosis and again following 12 weeks of treatment with docetaxel, a standard cancer chemotherapy widely used to treat breast cancer. The biopsies taken after 12 weeks of treatment showed increased expression of biomarkers for CSCs and an increased number of chemoresistant cells as compared to biopsies taken at the time of initial diagnosis. This result indicates that the CSC component of the tumor was relatively resistant to the chemotherapy. Moreover, it supports our belief that either a combination of treatments or a single therapy that can effectively target both CSCs and other types of cancer cells is critical to create a durable clinical response.

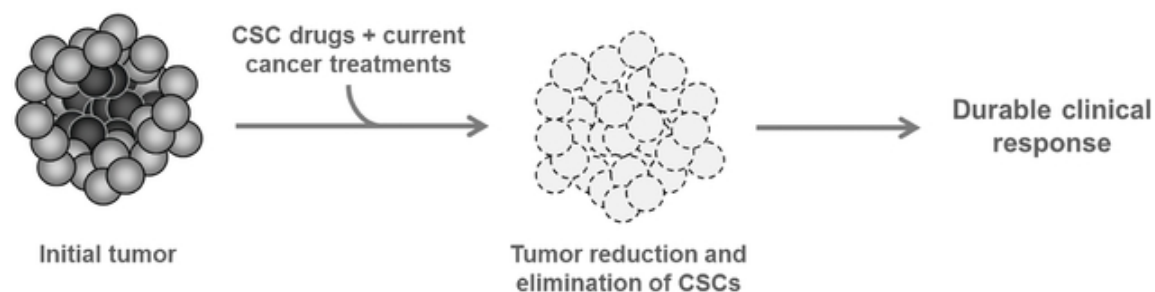
OUR SOLUTION

Our solution is to discover and develop a next generation of oncology therapeutics targeting cancer stem cells along with companion diagnostics. We believe that by developing therapeutics that target CSCs we can address the problem of cancer recurrence and metastasis and create a durable clinical response.

Our scientific co-founders at the Whitehead Institute and the Broad Institute made discoveries linking the activation of the EMT process in epithelial cancer cells to the emergence of CSCs. Their studies demonstrated that the EMT process can be activated *in vitro* by forcing a higher level of expression of genes that direct the EMT process or by eliminating key epithelial proteins. The mesenchymal cancer cells that emerge from this induced EMT process have the hallmarks of CSCs, including tumor-forming

ability and increased resistance to chemotherapeutic drugs. Our solution utilizes proprietary technology based on the discovery linking the EMT process to the emergence of CSCs. We use this technology along with high-throughput screening methods to identify drugs targeting CSCs and develop companion diagnostics. To achieve a durable clinical response, we believe that it may be necessary to kill both CSCs and other types of cancer cells in a tumor, as illustrated in the figure below, either with a combination of current cancer treatments and CSC-targeted drugs or a single therapeutic found to target both cancer cell populations.

Our goal:

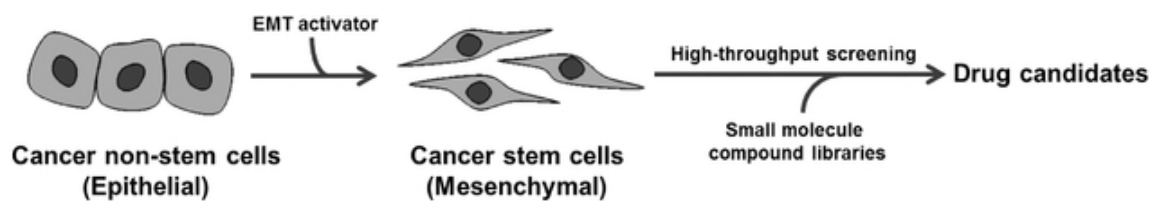


Our proprietary technology

A persistent problem in the discovery of drugs targeting CSCs is the difficulty of isolating large numbers of CSCs. Without such large numbers, the discovery of drugs targeting CSCs using high-throughput screening is extremely difficult. Moreover, when CSCs are isolated, they typically do not remain stable in culture. Instead, over a short period of time, CSCs convert into other types of cancer cells. To address this problem, our scientific co-founders developed proprietary technology based on the EMT process to create a stable population of CSCs that are suitable for use in high-throughput screening of small molecule compounds. These stable CSCs are similar to natural CSCs in that they are drug resistant and capable of forming new tumors.

We license our EMT technology from the Whitehead Institute. Through September 30, 2011, we and scientists at the Whitehead Institute and the Broad Institute had used our technology and high-throughput screening methods to evaluate the ability of over 300,000 compounds to kill CSCs. We hold exclusive license rights to compounds and uses identified under our agreement with the Whitehead Institute and a right of first negotiation to compounds identified under our agreement with the Broad Institute.

To identify compounds that are selective for CSCs, we grow cancer non-stem cells in the laboratory and then induce the EMT process to create a stable population of CSCs. As illustrated in the figure below, we then screen compounds to assess their ability to kill the CSCs. Because these CSCs are stable in culture, the screening process can be conducted using high-throughput technology on a large number and wide variety of small molecule compound libraries. These compound libraries include new chemical entities, or NCEs, approved drugs and compounds that are in preclinical and clinical development. We then profile the compounds that are identified as selective for CSCs using additional assays to identify suitable clinical candidates.



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Biomarkers and diagnostics

Because of the high level of toxicity of traditional chemotherapies and the variability in response of tumors to these treatments, it is critically important to get the right cancer drug to the right patient. As a result, the oncology field has been at the forefront of developing diagnostics to select patients who may benefit from specific therapies, which is sometimes referred to as personalized medicine. We plan to build on the methods incorporated in our EMT technology to develop diagnostics designed to enhance our ability to deliver the right drug to the right patient.

In particular, we are identifying specific protein and gene biomarkers that are either present or conspicuously absent in CSCs. We are also developing panels of multiple biomarkers, which we believe may be more effective at identifying CSCs than individual biomarkers alone. We believe that our diagnostics will enable us to identify patients with aggressive cancers that have a high percentage of CSCs. We further believe that these patients are the most likely to benefit from our drug candidates. By screening to identify these patients, we expect to be able to select appropriate patients for enrollment in our clinical trials and ultimately, if we obtain marketing approval, patients who are likely to respond to our therapies. We also plan to use these diagnostics to measure the selective killing of CSCs by our drug candidates as one of the ways of determining their efficacy.

We expect that our use of proprietary diagnostics may accelerate the clinical development process for our drug candidates by enabling smaller, targeted trials. We believe that use of these diagnostics may provide early, objective signals of drug activity to guide us to optimal dosing and the sequencing of agents more quickly. We also believe that this approach may ultimately enable physicians to identify patients who are likely to benefit most from these therapies and make better clinical decisions during therapy.

We are working on companion diagnostics for our therapeutic programs based on both in-licensed and internally developed technology and science. We believe that augmenting our internal capabilities with external collaborations with experienced third parties can reduce development risk and accelerate our progress in this field.

OUR STRATEGY

We believe that a key reason for the failure of many current cancer treatments is that they fail to kill CSCs, which we believe are responsible for the initiation, metastasis and recurrence of many cancers. Our goal is to build a leading biopharmaceutical company focused on the discovery, development and, ultimately, commercialization of novel drugs and companion diagnostics targeting CSCs. Key elements of our strategy to achieve this goal are:

- *Continue to screen and identify small molecules that target CSCs.* We plan to use our proprietary EMT technology and high-throughput screening methods to identify additional compounds that target CSCs. We also plan to further optimize these agents through medicinal chemistry as necessary to create drug candidates.
- *In-license rights to additional compounds to expand our pipeline of candidates that target CSCs.* We plan to pursue the acquisition or in-license from third parties of rights to additional compounds that target CSCs, including compounds that are in preclinical and clinical development. We believe that our approach of identifying drug candidates from external sources at various stages of development to supplement our internal programs may allow us to initiate clinical development of a diverse pipeline of compounds more quickly than if we were to focus solely on internally developed NCEs.

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- *Rapidly advance our drug candidates into clinical development.* We expect to file an IND with the FDA in late 2012 to initiate a Phase 1 clinical trial of our most advanced drug candidate, VS-507. Our goal is to initiate clinical development of a number of additional therapeutic candidates over the next several years.
- *Develop diagnostics for therapeutic products targeting CSCs.* We plan to develop companion diagnostic products to support our therapeutic product candidates. We believe that use of these diagnostics may aid in the selection of patients for enrollment in our clinical trials and, if we obtain marketing approval, patients who are most likely to benefit from therapy with our drugs. We also believe that these diagnostics may be used to monitor patients' progress on therapy and aid physicians' ongoing treatment decisions.
- *Collaborate selectively to augment and accelerate development and commercialization.* We may seek third-party collaborators for the development and commercialization of our product candidates. In particular, we may enter into third-party arrangements for target oncology indications in which our potential collaborator has particular expertise or for which we need access to additional research, development or commercialization resources.
- *Maintain scientific leadership in the CSC field.* We plan to continue to conduct research in the field of EMT and CSCs to further our understanding of the underlying biology of cancer progression and metastasis. We also plan to continue fostering relationships with top scientific advisors, researchers and physicians. We believe that investing in the recruitment of exceptional advisors, employees and management is critical to leadership in the CSC field.

OUR PRODUCT CANDIDATES

Using our proprietary technology and high-throughput screening methods, we are evaluating compounds for their activity in CSCs in a way that we believe has not been previously possible. We are focused on the discovery and development of small molecules to expedite the path to human clinical trials and to allow flexibility in the design of molecules for optimized efficacy and safety regardless of the route of administration.

VS-507

Overview

Our most advanced product candidate is the small molecule VS-507. We are currently evaluating VS-507 in preclinical studies as a potential therapy for breast cancer. Because we believe that VS-507 may be especially beneficial as a therapeutic in triple negative breast cancer, or TNBC, we are pursuing TNBC as our first clinical indication. We believe that VS-507 targets the CSCs that have been implicated in aggressive cancer, metastases and chemotherapeutic resistance. Our scientific co-founders identified VS-507 using the proprietary technology that we license from the Whitehead Institute and published the results in the peer reviewed scientific journal *Cell* in 2009. We hold an exclusive license from the Whitehead Institute for use of VS-507 in treating cancer. We expect to file an IND with the FDA in late 2012 to initiate a Phase 1 clinical trial of VS-507.

We believe VS-507 targets CSCs by disrupting signaling inside these cells. A group of scientific researchers recently reported in the *Proceedings of the National Academy of Sciences of the United States of America*, or *PNAS*, that VS-507's activity may be mediated through the blockade of the Wnt/beta-catenin cell signaling pathway. Numerous research reports, including a 2011 paper published in *Cell* by our scientific co-founder Robert Weinberg, describe a critical role of the Wnt/beta-catenin signaling pathway in the development and maintenance of CSCs.

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Wnts are a family of proteins that bind to receptor proteins, called Frizzled receptors, on the tumor cell surface. We believe that blocking Wnt function could dramatically impair survival and growth of CSCs. However, Wnt signaling is extremely complex, involving 19 different Wnt proteins stimulating through 10 different Frizzled receptors. While it may be possible to develop a small molecule or antibody that can block binding of one or perhaps a few Wnts to their receptors, such a drug likely would not effectively eliminate CSCs because other Wnt and Frizzled proteins that remain unblocked would be sufficient to maintain CSC function.

A potential breakthrough solution to this problem has come through the identification of the LRP6 protein, which interacts with multiple Wnt proteins and appears to be necessary for the development and maintenance of CSCs. LRP6 may represent a single common point of the Wnt system that can be targeted to kill CSCs. In the *PNAS* study referenced above, VS-507 decreased the levels of LRP6 protein *in vitro* and blocked the ability of Wnt proteins to stimulate beta-catenin, a signaling protein that regulates genes responsible for CSC function. We believe this disruption of the Wnt/beta-catenin signaling pathway is responsible for the inhibitory effects of VS-507 on CSCs that we have observed in preclinical studies.

Breast cancer

The National Cancer Institute estimated that in January 2008 there were approximately 2.6 million women in the United States with a history of breast cancer. Breast cancer is currently the second most frequently diagnosed and the second most deadly cancer among women in the United States. The American Cancer Society estimates that in the United States in 2011, approximately 230,500 new cases of invasive breast cancer will be diagnosed in women and approximately 39,500 women will die from the disease.

Breast cancers can be segregated into subtypes based upon the positive presence of three protein receptors:

- > estrogen receptor, or ER;
- > progesterone receptor, or PR; and
- > human epidermal growth factor receptor 2, or HER2.

TNBC is a type of breast cancer that does not express any of these three receptors. According to results from a population-based study of the California Cancer Registry published by the American Cancer Society in 2007, approximately 15% of all breast cancers were classified as TNBC. In comparison with other breast cancers, TNBC tends to grow faster and has a higher rate of metastases. Furthermore, TNBC tends to recur more often than other subtypes of breast cancer. Patients with TNBC generally have a poorer prognosis and lower overall survival rate than patients with breast cancers that are positive for the hormone receptors ER and PR.

We believe that the natural disease progression of TNBC exhibits the key hallmarks of CSCs. Specifically, we believe that:

- > TNBC is initially responsive to chemotherapy because chemotherapy kills the majority of cancer cells, but not the CSCs.
- > TNBC returns more often than other types of breast cancer in part because there are CSCs that are not killed by current cancer treatments.
- > The site of recurrence is often at another place in the body than the original tumor because the CSCs not killed are able to metastasize.
- > The recurring tumor may be resistant to therapy because it contains a high percentage of CSCs.

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We believe that VS-507 may be especially beneficial as a therapeutic for the treatment of TNBC, in particular for the subset of TNBC patients whose tumors are classified as claudin-low. Claudin-low TNBC patients have tumors containing a low level of protein biomarkers called claudins. Claudin-low tumors are highly aggressive, are resistant to treatment and have a high percentage of CSCs relative to other breast cancer types. The prognosis for patients with claudin-low TNBC is poor.

Current treatment of breast cancer

Surgery, radiation therapy, targeted therapy, hormone therapy and combinations of conventional chemotherapy are often used to treat breast cancer. However, these therapies carry significant side effects and frequently do not result in a durable clinical response, especially for patients with TNBC.

The choice of cancer drugs used to treat breast cancer is guided by clinical classification of the tumor as ER positive or negative, PR positive or negative and HER2 positive or negative. The presence, absence or combination of these biomarkers in patient tumors informs the selection of prescribed drugs, which include the anti-estrogen therapies Tamoxifen and aromatase inhibitors, as well as agents that directly target HER2, such as Herceptin and Tykerb. These treatments may slow or stop cancer growth and are currently considered the most successful treatments for breast cancer. However, because TNBC patients are negative for ER, PR and HER2, the treatment options for these patients are limited. In particular, the targeted therapies, including Herceptin, Tykerb and anti-estrogen treatments, are not effective for these patients.

Combinations of conventional chemotherapy work by stopping the function of cancer cells through a variety of mechanisms. Chemotherapies are usually not targeted at any specific differences between cancer cells and normal cells. Rather, they kill cancer cells because cancer cells generally grow more rapidly than normal cells and, as a result, are relatively more affected by the chemotherapy than normal cells. Because CSCs exhibit mechanisms of resistance, including a slower rate of growth than other cancer cells, they are often not susceptible to conventional chemotherapy. As a result, the treatments may succeed at initially decreasing tumor burden but ultimately fail to kill the CSCs. For example, in a study conducted at Baylor College of Medicine, in which biopsies were taken from breast cancer patients both before and after conventional chemotherapy treatment, the percentage of CSCs increased over the 12-week treatment period, indicating the survival of these cells.

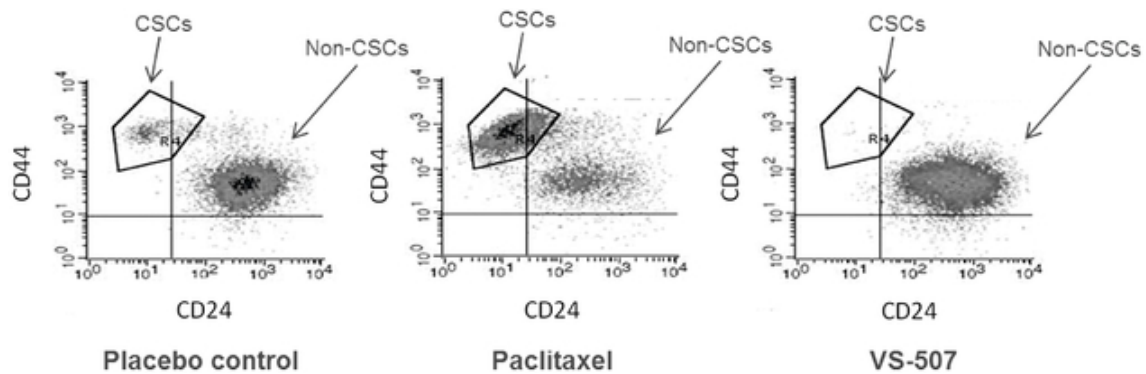
If tumors recur, which happens more often in TNBC than other breast cancers, further therapy with conventional chemotherapy is generally palliative, not curative, as the CSCs are able to metastasize and spread to other sites in the body.

Preclinical development

We are conducting a comprehensive preclinical program to study VS-507 as a potential treatment for breast cancer. Key results of this program to date, based on experiments conducted by our scientific co-founders, are summarized below.

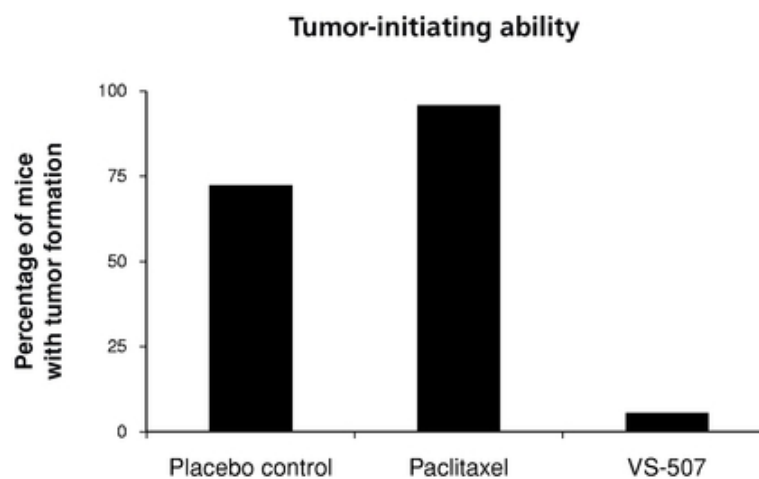
Laboratory studies. The effect of VS-507 on CSCs as compared to other cancer cells was evaluated *in vitro*. We believe that a biomarker useful for identifying breast CSCs is the expression ratio of the cell surface proteins CD44 to CD24, which can be measured for each individual cell using a method known as flow cytometry. Using this method, the amount of each protein is measured on the cell surface and the number of CSCs in a cell culture is determined by quantifying cell populations based on their expression of CD44 and CD24. As originally reported in *PNAS* in 2003, breast CSCs express high levels of CD44 and low levels of CD24 relative to other types of breast cancer cells. This differential expression is represented in the figure below as an increase in the shading in the top left portion of the flow cytometry plot. Treatment of a breast cancer cell line containing CSCs with VS-507 resulted in a decrease in the population of CSCs compared to the placebo control. In contrast,

treatment with paclitaxel resulted in an increase in the population of CSCs compared to the placebo control. We believe that the opposing actions of VS-507 and paclitaxel are due to a selective effect of VS-507 on the killing of CSCs not observed with paclitaxel treatment.



Gene expression analysis. Opposing effects of VS-507 and paclitaxel also were shown by gene expression analysis. Human breast cancer cells were treated in culture with either VS-507 or paclitaxel for one week and then incubated in the absence of drug for three weeks prior to analysis. The two populations were subjected to comparative global gene expression analysis, which can identify the genes that have the greatest differential change in expression in response to treatment. The panel of genes exhibiting the greatest differential change in this analysis comprise a gene expression signature that may be used for the identification of CSCs. In this experiment, VS-507 and paclitaxel had opposing actions on biomarkers of CSCs and genes known to be commonly expressed in epithelial tissue types. Unlike treatment with paclitaxel, treatment with VS-507 resulted in the loss of expression of CSC-associated genes. Expression of these genes is correlated with poor-prognosis tumors.

Mouse models of breast cancer. The functional presence of CSCs was assessed by evaluating *in vivo* tumor-initiating, or tumor-forming, ability after chemical compound treatment. In these experiments, a human breast cancer cell line containing a mixture of CSCs and other cancer cells was treated with VS-507, paclitaxel or a placebo control *in vitro* for seven days and expanded in culture for at least 14 days in the absence of treatment. The cells were then injected into mice. As shown in the figure below, treatment of these cells with VS-507 resulted in the formation of tumors in fewer mice than treatment with paclitaxel. These findings suggest that CSCs within breast cancer cell populations may be resistant to paclitaxel but sensitive to treatment with VS-507.



Mouse model of metastatic breast cancer. To specifically evaluate the effects of a therapeutic compound on the metastatic potential of cells following treatment, murine breast cancer cells treated *in vitro* with VS-507, paclitaxel or a placebo control were injected into the tail vein of mice and the number of metastases that subsequently appeared in the lungs was measured. After three weeks of growth of these cells *in vivo*, mice injected with cells that had been treated with VS-507 displayed a four-fold reduction in metastatic burden compared to the placebo control while, in contrast, mice injected with cells that had been treated with paclitaxel displayed a two-fold increase in metastatic burden compared to the placebo control.

VS-507 clinical development plan

We are developing VS-507 as an anti-cancer drug for the treatment of breast cancer, initially TNBC, and other cancers. To enhance the therapeutic benefit, we may also use VS-507 in combination with existing therapies in an effort to target both the CSCs and other types of cancer cells. We are developing novel formulations of VS-507, which we may use in our clinical development program.

Assuming successful completion of preclinical studies, we anticipate filing an IND with the FDA to initiate clinical trials of VS-507. If this application is accepted, we anticipate initiating a dose escalation portion of a Phase 1 clinical trial in patients with advanced solid tumors. The dose escalation portion of the Phase 1 clinical trial would be designed to determine the maximum tolerated dose of VS-507. We also plan to assess safety and tolerability of VS-507 in this portion of the trial.

Upon identification of the maximum tolerated dose, we plan to enroll an expanded cohort of breast cancer patients to further assess the safety of VS-507 and evaluate efficacy on a preliminary basis in accordance with Response Criteria in Solid Tumors, or RECIST, measurement guidelines, and based on the presence of CSC-specific biomarkers. RECIST has traditionally been used as a standard measure of activity in clinical trials. However, because RECIST is based on gross changes in the size of tumor lesions of more than 30%, it is possible that changes in the tumor burden following selective targeting of CSCs in a single-agent, maximum-tolerated-dose study will not be detected using RECIST. As a result, we believe that sensitive CSC-specific biomarkers may be useful in conjunction with RECIST to quantify the effect of VS-507 on CSCs.

VS-507 companion diagnostic

We intend to incorporate CSC-specific biomarkers into a VS-507 companion diagnostic for use in identifying patients whose tumors have a high percentage of CSCs and are likely to benefit from

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treatment with VS-507. We may use this information to aid in the selection of patients for late stage clinical trials. We also plan to utilize this diagnostic to measure the effect that VS-507 has on CSCs in a tumor.

NEW CHEMICAL ENTITIES (NCEs)

We have initiated NCE programs on more than 10 series of chemical compounds identified using our proprietary EMT technology along with high-throughput screening methods. In addition, we have synthesized several drug candidates that are chemically similar to VS-507 and are currently optimizing their activity in blocking the Wnt/beta-catenin signaling pathway and CSC survival.

We evaluate the activity of chemical compounds *in vitro* by measuring their potency and selectivity against CSCs. In general, the more potent a drug is, the lower the dose required for a therapeutic effect. In an *in vitro* assessment of cell proliferation, one of the series of NCE compounds that we have identified has exhibited potent activity and greater than 10-fold preferential effect, or selectivity, for CSCs as compared to other types of cancer cells. A second series of compounds has shown potent activity and greater than 50-fold selectivity for killing of CSCs compared to its effects on other types of cancer cells. Compounds from our NCE programs also have demonstrated preclinical activity in a broad range of cancer cells, including breast cancer cell lines derived from TNBC tumors in which a high percentage of CSCs have been identified. We are currently evaluating additional proprietary product candidates from our NCE programs in preclinical studies for their use in breast and other cancers.

INTELLECTUAL PROPERTY

We aggressively strive to protect the proprietary technology that we believe is important to our business, including seeking and maintaining patents intended to cover our products and compositions, their methods of use and processes for their manufacture, as well as our diagnostic, biomarker, patient selection and drug discovery technologies and any other inventions that are commercially important to the development of our business. We also rely on trade secrets to protect aspects of our business that are not amenable to, or that we do not consider appropriate for, patent protection.

Our success will depend on our ability to obtain and maintain patent and other proprietary protection for commercially important technology, inventions and know-how related to our business, defend and enforce our patents, preserve the confidentiality of our trade secrets and operate without infringing the valid and enforceable patents and proprietary rights of third parties. We also rely on know-how, continuing technological innovation and in-licensing opportunities to develop and maintain our proprietary position.

We seek to obtain domestic and international patent protection, and endeavor to promptly file patent applications for new commercially valuable inventions. We license a portfolio of patent applications owned by MIT and the Whitehead Institute. As of September 30, 2011, we hold licenses to three pending U.S. patent applications, as well as foreign counterparts to these patent applications. Of these licensed patent applications, we license one on an exclusive basis and two on a non-exclusive basis.

The patent application that we license on an exclusive basis includes claims covering: methods of identifying compounds that inhibit the growth or survival of CSCs, methods of identifying CSCs and methods of treating cancer, including methods of selecting courses of treatment for cancer therapy based, for example, on the presence of a biomarker. The application also includes claims to methods of using certain compounds, identified for example by the claimed screening technology, in the treatment of cancer. Any U.S. or EU patents that may issue from this application would have a statutory expiration date in 2029.

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The two patent applications that we license on a non-exclusive basis include claims covering: additional methods of identifying CSCs, *in vitro* methods of creating CSCs, for example through activation of the EMT process, progenitor cells and uses for those cells, methods of determining the metastatic potential of a tumor and methods of diagnosing, preventing and treating cancer metastasis. Any U.S. patents that may issue from this application would have a statutory expiration date in 2026.

We have an agreement with the Broad Institute, which grants us under certain circumstances the first right to negotiate a license for intellectual property. This intellectual property includes patent applications and patents covering the use of biomarkers related to the EMT process. This intellectual property also includes compounds that can be used for treatment of cancer. An example is a compound that is identified by screening the effects of compounds on CSCs, notably CSCs created through the EMT process.

We may rely, in some circumstances, on trade secrets to protect our technology. However, trade secrets can be difficult to protect. We seek to protect our proprietary technology and processes, in part, by confidentiality agreements with our employees, consultants, scientific advisors and contractors. We also seek to preserve the integrity and confidentiality of our data and trade secrets by maintaining physical security of our premises and physical and electronic security of our information technology systems. While we have confidence in these individuals, organizations and systems, agreements or security measures may be breached, and we may not have adequate remedies for any breach. In addition, our trade secrets may otherwise become known or be independently discovered by competitors. To the extent that our consultants, contractors or collaborators 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.

LICENSES

Whitehead Institute for Biomedical Research

Exclusive license agreement

In October 2010, we entered into an exclusive license agreement with the Whitehead Institute, both on its own behalf and as sole and exclusive agent of MIT. Under the license agreement, we acquired an exclusive, royalty-bearing, worldwide license under patent rights owned by the Whitehead Institute and MIT to develop, make, use and sell products covered by the licensed patent rights, including VS-507 for use in treating cancer, and to develop and perform licensed processes, in each case, for all human therapeutic, prognostic and diagnostic uses. These exclusive licensed patent rights are described in more detail above under "Intellectual Property."

We are required to use commercially reasonable efforts to develop and commercialize licensed products under the agreement. In particular, we are required to fulfill specific development and regulatory milestones by particular dates and, during each calendar year, either spend a specified amount for research and development, actively conduct one or more clinical trials for a licensed product or a product identified using a licensed process that does not constitute a licensed product, which we refer to as an identified product, prepare, file or pursue a filed application for regulatory approval of a licensed product or an identified product, or launch or sell a licensed product or identified product.

Under the agreement, we paid the Whitehead Institute an upfront license fee, reimbursed patent related fees and costs incurred by the Whitehead Institute and MIT and issued 583,333 shares of our common stock to the Whitehead Institute and entities and individuals affiliated with the Whitehead Institute.

We also agreed to pay the Whitehead Institute annual license maintenance fees, milestone payments, royalties as a percentage of net sales and a percentage of sublicense income that we receive. Annual license maintenance fees are creditable against royalties, which are described below, earned during the

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same calendar year. Milestone payments are triggered upon the achievement of specified development, regulatory and commercialization milestones and are not creditable against the royalties described below. For each licensed product, we agreed to make milestone payments of up to an aggregate of \$1,560,000 plus an additional amount for each subsequent approval of additional indications for a maximum number of licensed products. For each identified product that is not a licensed product, we agreed to make milestone payments of up to an aggregate of \$815,000 plus an additional amount for each subsequent approval of additional indications for a maximum number of identified products. Each type of specified milestone payment is payable only for each of the maximum number of licensed products and the maximum number of identified products, as the case may be, to achieve the applicable milestone. In addition, a separate milestone payment is due upon the first commercial sale of each licensed product or identified product that is a diagnostic or prognostic test. A single additional milestone payment is due for the first issuance of licensed patent rights in the United States, the United Kingdom, France, Germany, Spain or Italy. The royalty rate is in the low single digits as a percentage of net sales for licensed products that are therapeutics, the mid single digits for licensed products that are diagnostics or prognostics and less than one percent for identified products.

The Whitehead Institute and MIT retain the right to, and may grant licenses to other academic and non-profit institutions for the right to, practice the licensed patent rights for research, teaching and educational purposes. The Whitehead Institute, MIT or any such other institution could seek to license to third parties any intellectual property rights that it discovers using the licensed patent rights while pursuing these purposes. Under the agreement, we have a right, subject to the Whitehead Institute's obligations under third party research funding agreements, to negotiate a license for any compounds identified prior to a specified date in the Whitehead Institute's laboratory run by Dr. Weinberg that selectively target CSCs generated by induction through the EMT process.

After a specified period of time, if a third party requests to sublicense the patent rights for a product or process that is not directly competitive with our products or processes, we must enter into good-faith negotiations to grant a sublicense for such proposed product or process. If we do not grant a sublicense within a specified period of time after receiving a written request, the Whitehead Institute may grant a license to the third party and our rights in the field of use of such sublicense will terminate. Additionally, after a specified period of time, if we are not actively conducting high-throughput screening using the licensed patent rights to identify product candidates, then, except for any rights directed to uses that we are actively developing, the Whitehead Institute may convert our license to the licensed patent rights from exclusive to nonexclusive.

We have the right to terminate the agreement for any reason upon at least 90 days' prior written notice. The Whitehead Institute has the right to terminate the agreement if we and all of our sublicensees cease to carry on business related to the agreement for a specified period of time, we fail to pay any amounts due and payable under the agreement to the Whitehead Institute, subject to a grace period, we materially breach the agreement and fail to cure such breach within a specified grace period or we or a sublicensee challenge the licensed patent rights in a legal or administrative proceeding. The agreement otherwise terminates upon the expiration or abandonment of all licensed patents and patent applications.

Non-exclusive license agreement

In October 2010, we entered into a separate non-exclusive license agreement with the Whitehead Institute under which we acquired a non-exclusive, worldwide license to patent rights owned by the Whitehead Institute for our internal research purposes, including research as part of a program to develop and commercialize small molecules or biologic molecules as pharmaceutical products. These non-exclusive licensed patent rights are described in more detail above under "Intellectual Property."

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Under the agreement, we paid the Whitehead Institute upfront license fees. We also are obligated to pay the Whitehead Institute an annual license maintenance fee beginning in 2012. We have the right to terminate the agreement for any reason upon at least 90 days' prior written notice. The Whitehead Institute has the right to terminate the agreement if we cease to carry on business related to the agreement for a period in excess of six months, we fail to pay any amounts due and payable under the agreement to the Whitehead Institute, subject to a grace period, we materially breach the agreement and fail to cure such breach within a specified grace period or we challenge the licensed patent rights in a legal or administrative proceeding.

Broad Institute of MIT and Harvard

In October 2010, the Broad Institute granted to us the first right to negotiate a license in good faith for specified intellectual property owned by the Broad Institute if we have not breached the terms of the exclusive license agreement with the Whitehead Institute described above. Following written notice of the availability of such intellectual property for licensing by the Broad Institute to us, the Broad Institute has agreed not to negotiate with any other party during our right of first negotiation period. If we and the Broad Institute are unable to negotiate a license within such period, the Broad Institute may then offer the intellectual property for licensing to other parties. The intellectual property subject to this right of first negotiation is described in more detail above under "Intellectual Property."

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 technology, development experience and scientific knowledge provide us with competitive advantages, we face potential competition from many different sources, including major pharmaceutical, specialty pharmaceutical and biotechnology companies, academic institutions and governmental agencies and public and private research institutions. Any product candidates that we successfully develop and commercialize will compete with existing therapies and new therapies that may become available in the future.

There are other companies working to develop therapies that target CSCs. These companies include divisions of large pharmaceutical companies including Astellas Pharma Inc., Sanofi-Aventis U.S. LLC, GlaxoSmithKline plc and others. There are also biotechnology companies of various sizes that are developing therapies against CSCs, including OncoMed Pharmaceuticals, Inc., Boston Biomedical Inc. and Stemline Therapeutics, Inc.

Many of our competitors may have significantly greater financial resources and expertise in research and development, manufacturing, preclinical testing, conducting clinical trials, obtaining regulatory approvals and marketing approved products than we do. Mergers and acquisitions in the pharmaceutical, biotechnology and diagnostic industries may result in even more resources being concentrated among a smaller number of our competitors. These competitors also compete with us in recruiting and retaining qualified scientific and management personnel and establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies complementary to, or necessary for, our programs. Smaller or early stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies.

The key competitive factors affecting the success of all of our product candidates, if approved, are likely to be their efficacy, safety, convenience, price, the effectiveness of companion diagnostics in guiding the use of related therapeutics, the level of generic competition and the availability of reimbursement from government and other third-party payors.

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Our commercial opportunity could be reduced or eliminated if our competitors develop and commercialize products that are safer, more effective, have fewer or less severe side effects, are more convenient or are less expensive than any products that we may develop. Our competitors also may obtain FDA or other regulatory approval for their products more rapidly than we may obtain approval for ours, which could result in our competitors establishing a strong market position before we are able to enter the market. In addition, our ability to compete may be affected in many cases by insurers or other third-party payors seeking to encourage the use of generic products. There are many generic products currently on the market for the indications that we are pursuing, and additional products are expected to become available on a generic basis over the coming years. If our therapeutic product candidates are approved, we expect that they will be priced at a significant premium over competitive generic products.

The most common methods of treating patients with cancer are surgery, radiation and drug therapy, including chemotherapy, hormone therapy and targeted drug therapy. There are a variety of available drug therapies marketed for cancer. In many cases, these drugs are administered in combination to enhance efficacy. While our product candidates may compete with many existing drug and other therapies, to the extent they are ultimately used in combination with or as an adjunct to these therapies, our product candidates will not be competitive with them. Some of the currently approved drug therapies are branded and subject to patent protection, and others are available on a generic basis. Many of these approved drugs are well established therapies and are widely accepted by physicians, patients and third-party payors. In general, although there has been considerable progress over the past few decades in the treatment of cancer and the currently marketed therapies provide benefits to many patients, these therapies all are limited to some extent in their efficacy and frequency of adverse events, and none of them are successful in treating all patients. As a result, the level of morbidity and mortality from cancer remains high.

In addition to currently marketed therapies, there are also a number of products in late stage clinical development to treat cancer. These products in development may provide efficacy, safety, convenience and other benefits that are not provided by currently marketed therapies. As a result, they may provide significant competition for any of our product candidates for which we obtain market approval.

MANUFACTURING

We do not own or operate, and currently have no plans to establish, any manufacturing facilities. We currently rely, and expect to continue to rely, on third parties for the manufacture of our product candidates and any products that we may develop, other than small amounts of compounds that we may synthesize ourselves for preclinical testing. To date, we have obtained starting materials for our supply of the bulk drug substance for our product candidates from one third-party manufacturer. We obtain our supplies from this manufacturer on a purchase order basis and do not have a long-term supply arrangement in place. We do not currently have arrangements in place for redundant supply or a second source for bulk drug substance. If our current third-party manufacturer should become unavailable to us for any reason, we believe that there are several potential replacements, although we might incur some delay in identifying and qualifying such replacements.

All of our drug candidates are organic compounds of low molecular weight, generally called small molecules. We select compounds not only on the basis of their potential efficacy and safety, but also for their ease of synthesis and reasonable cost of their starting materials. We expect to continue to develop drug candidates that can be produced cost-effectively at third-party manufacturing facilities.

GOVERNMENT REGULATION

Government authorities in the United States, at the federal, state and local level, and in other countries extensively regulate, among other things, the research, development, testing, manufacture, including any manufacturing changes, packaging, storage, recordkeeping, labeling, advertising, promotion, distribution, marketing, post-approval monitoring and reporting, import and export of pharmaceutical products, such as those we are developing.

United States drug approval process

In the United States, the FDA regulates drugs under the Federal Food, Drug, and Cosmetic Act, or FDCA, the Public Health Service Act and implementing regulations. The process of obtaining regulatory approvals and the subsequent compliance with appropriate federal, state, local and foreign statutes and regulations requires the expenditure of substantial time and financial resources. Failure to comply with the applicable United States requirements at any time during the product development process, approval process or after approval, may subject an applicant to a variety of administrative or judicial sanctions, such as the FDA's refusal to approve pending applications, withdrawal of an approval, imposition of a clinical hold, issuance of warning letters, product recalls, product seizures, total or partial suspension of production or distribution injunctions, fines, refusals of government contracts, restitution, disgorgement of profits or civil or criminal penalties.

The process required by the FDA before a drug may be marketed in the United States generally involves the following:

- > completion of preclinical laboratory tests, animal studies and formulation studies in compliance with the FDA's good laboratory practice, or GLP, regulations;
- > submission to the FDA of an IND, which must become effective before human clinical trials may begin;
- > approval by an independent institutional review board, or IRB, at each clinical site before each trial may be initiated;
- > performance of adequate and well-controlled human clinical trials in accordance with good clinical practices, or GCP, to establish the safety and efficacy of the proposed drug for each indication;
- > submission to the FDA of a new drug application, or NDA;
- > satisfactory completion of an FDA advisory committee review, if applicable;
- > satisfactory completion of an FDA inspection of the manufacturing facility or facilities at which the product is produced to assess compliance with current good manufacturing practices, or cGMP, requirements and to assure that the facilities, methods and controls are adequate to preserve the drug's identity, strength, quality and purity; and
- > FDA review and approval of the NDA.

Preclinical studies

Preclinical studies include laboratory evaluation of product chemistry and formulation, as well as *in vitro* and animal studies to assess the potential for adverse events and in some cases to establish a rationale for therapeutic use. The conduct of preclinical studies is subject to federal regulations and requirements, including GLP regulations for safety/toxicology studies. An IND sponsor must submit the results of the preclinical tests, together with manufacturing information, analytical data, any available clinical data or literature and plans for clinical studies, among other things, to the FDA as

part of an IND. Some long-term preclinical testing, such as animal tests of reproductive adverse events and carcinogenicity, may continue after the IND is submitted. An IND automatically becomes effective 30 days after receipt by the FDA, unless before that time the FDA raises concerns or questions related to one or more proposed clinical trials and places the trial on clinical hold. In such a case, the IND sponsor and the FDA must resolve any outstanding concerns before the clinical trial can begin. As a result, submission of an IND may not result in the FDA allowing clinical trials to commence.

Clinical trials

Clinical trials involve the administration of the investigational new drug to human subjects under the supervision of qualified investigators in accordance with GCP requirements, which include, among other things, the requirement that all research subjects provide their informed consent in writing before their participation in any clinical trial. Clinical trials are conducted under written study protocols detailing, among other things, the objectives of the study, the parameters to be used in monitoring safety and the effectiveness criteria to be evaluated. A protocol for each clinical trial and any subsequent protocol amendments must be submitted to the FDA as part of the IND. In addition, an IRB at each institution participating in the clinical trial must review and approve the plan for any clinical trial before it commences at that institution, and the IRB must conduct continuing review. The IRB must review and approve, among other things, the study protocol and informed consent information to be provided to study subjects. An IRB must operate in compliance with FDA regulations. Information about certain clinical trials must be submitted within specific timeframes to the National Institutes of Health for public dissemination on their ClinicalTrials.gov website.

Human clinical trials are typically conducted in three sequential phases, which may overlap or be combined:

- *Phase 1:* The drug is initially introduced into healthy human subjects or patients with the target disease or condition and tested for safety, dosage tolerance, absorption, metabolism, distribution, excretion and, if possible, to gain an early indication of its effectiveness.
- *Phase 2:* The drug is administered to a limited patient population to identify possible adverse effects and safety risks, to preliminarily evaluate the efficacy of the product for specific targeted diseases and to determine dosage tolerance and optimal dosage.
- *Phase 3:* The drug is administered to an expanded patient population in adequate and well-controlled clinical trials to generate sufficient data to statistically confirm the efficacy and safety of the product for approval, to establish the overall risk-benefit profile of the product and to provide adequate information for the labeling of the product.

Progress reports detailing the results of the clinical trials must be submitted at least annually to the FDA and more frequently if serious adverse events occur. Phase 1, Phase 2 and Phase 3 clinical trials may not be completed successfully within any specified period, or at all. Furthermore, the FDA or the sponsor may suspend or terminate a clinical trial at any time on various grounds, including a finding that the research subjects 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 drug has been associated with unexpected serious harm to patients.

Marketing approval

Assuming successful completion of the required clinical testing, the results of the preclinical and clinical studies, together with detailed information relating to the product's chemistry, manufacture, controls and proposed labeling, among other things, are submitted to the FDA as part of an NDA requesting approval to market the product for one or more indications. Under federal law, the submission of most NDAs is additionally subject to a substantial application user fee, currently exceeding \$1.8 million, and the sponsor of an approved NDA is also subject to annual product and establishment user fees, currently exceeding \$98,000 per product and \$520,000 per establishment. These fees are typically increased annually.

The FDA conducts a preliminary review of all NDAs within the first 60 days after submission before accepting them for filing to determine whether they are sufficiently complete to permit substantive review. The FDA may request additional information rather than accept an NDA for filing. In this event, the application must be resubmitted with the additional information. The resubmitted application is also subject to review before the FDA accepts it for filing. Once the submission is accepted for filing, the FDA begins an in-depth substantive review. The FDA has agreed to specified performance goals in the review of NDAs. Under these goals, the FDA has committed to review most such applications for non-priority products within 10 months, and most applications for priority review products, that is, drugs that the FDA determines represent a significant improvement over existing therapy, within six months. These performance goals likely will be extended by several months when the Prescription Drug User Fee Act is reauthorized in 2012. The review process may be extended by the FDA for three additional months to consider certain information or clarification regarding information already provided in the submission. The FDA may also refer applications for novel drugs or products that present difficult questions of safety or efficacy to an advisory committee, typically a panel that includes clinicians and other experts, for review, evaluation and a recommendation as to whether the application should be approved. The FDA is not bound by the recommendations of an advisory committee, but it considers such recommendations carefully when making decisions.

Before approving an NDA, the FDA typically will inspect the facility or facilities where the product is manufactured. The FDA will not approve an application unless it determines that the manufacturing processes and facilities are in compliance with cGMP requirements and adequate to assure consistent production of the product within required specifications. In addition, before approving an NDA, the FDA will typically inspect one or more clinical sites to assure compliance with GCP and integrity of the clinical data submitted.

The testing and approval process requires substantial time, effort and financial resources, and each may take many years to complete. Data obtained from clinical activities are not always conclusive and may be susceptible to varying interpretations, which could delay, limit or prevent regulatory approval. The FDA may not grant approval on a timely basis, or at all. We may encounter difficulties or unanticipated costs in our efforts to develop our product candidates and secure necessary governmental approvals, which could delay or preclude us from marketing our products.

After the FDA's evaluation of the NDA and inspection of the manufacturing facilities, the FDA may issue an approval letter or a complete response letter. An approval letter authorizes commercial marketing of the drug with specific prescribing information for specific indications. A complete response letter generally outlines the deficiencies in the submission and may require substantial additional testing or information in order for the FDA to reconsider the application. If and when those deficiencies have been addressed to the FDA's satisfaction in a resubmission of the NDA, the FDA will issue an approval letter. The FDA has committed to reviewing such resubmissions in two or six months depending on the type of information included. Even with submission of this additional

information, the FDA ultimately may decide that the application does not satisfy the regulatory criteria for approval and refuse to approve the NDA.

Even if the FDA approves a product, it may limit the approved indications for use for the product, require that contraindications, warnings or precautions be included in the product labeling, require that post-approval studies, including Phase 4 clinical trials, be conducted to further assess a drug's safety after approval, require testing and surveillance programs to monitor the product after commercialization, or impose other conditions, including distribution restrictions or other risk management mechanisms, which can materially affect the potential market and profitability of the product. The FDA may prevent or limit further marketing of a product based on the results of post-market studies or surveillance programs. After approval, some types of changes to the approved product, such as adding new indications, manufacturing changes and additional labeling claims, are subject to further testing requirements and FDA review and approval.

Fast track designation

The FDA is required to facilitate the development and expedite the review of drugs that are intended for the treatment of a serious or life-threatening condition for which there is no effective treatment and which demonstrate the potential to address unmet medical needs for the condition. Under the fast track program, the sponsor of a new drug candidate may request the FDA to designate the product for a specific indication as a fast track product concurrent with or after the filing of the IND for the product candidate. The FDA must determine if the product candidate qualifies for fast track designation within 60 days after receipt of the sponsor's request.

In addition to other benefits, such as the ability to use surrogate endpoints and have greater interactions with the FDA, the FDA may initiate review of sections of a fast track product's NDA before the application is complete. This rolling review is available if the applicant provides and the FDA approves a schedule for the submission of the remaining information and the applicant pays applicable user fees. However, the FDA's time period goal for reviewing a fast track application does not begin until the last section of the NDA is submitted. In addition, the fast track designation may be withdrawn by the FDA if the FDA believes that the designation is no longer supported by data emerging in the clinical trial process.

Priority review

Under FDA policies, a product candidate may be eligible for priority review, or review within a six-month time frame from the time a complete application is received. Products regulated by the FDA's Center for Drug Evaluation and Research, or CDER, are eligible for priority review if they provide a significant improvement compared to marketed products in the treatment, diagnosis or prevention of a disease. A fast track designated product candidate would ordinarily meet the FDA's criteria for priority review.

Accelerated approval

Under the FDA's accelerated approval regulations, the FDA may approve a drug for a serious or life-threatening illness that provides meaningful therapeutic benefit to patients over existing treatments based upon a surrogate endpoint that is reasonably likely to predict clinical benefit. In clinical trials, a surrogate endpoint is a measurement of laboratory or clinical signs of a disease or condition that substitutes for a direct measurement of how a patient feels, functions or survives. Surrogate endpoints can often be measured more easily or more rapidly than clinical endpoints. A product candidate approved on this basis is subject to rigorous post-marketing compliance requirements, including the

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completion of Phase 4 or post-approval clinical trials to confirm the effect on the clinical endpoint. Failure to conduct required post-approval studies, or confirm a clinical benefit during post-marketing studies, would allow the FDA to withdraw the drug from the market on an expedited basis. All promotional materials for drug candidates approved under accelerated regulations are subject to prior review by the FDA.

Orphan drugs

Under the Orphan Drug Act, the FDA may grant orphan drug designation to drugs intended to treat a rare disease or condition, which is generally defined as a disease or condition that affects fewer than 200,000 individuals in the United States. Orphan drug designation must be requested before submitting an NDA. After the FDA grants orphan drug designation, the generic identity of the drug and its potential orphan use are disclosed publicly by the FDA. Orphan drug designation does not convey any advantage in, or shorten the duration of, the regulatory review and approval process. The first NDA applicant to receive FDA approval for a particular active ingredient to treat a particular disease with FDA orphan drug designation is entitled to a seven-year exclusive marketing period in the United States for that product, for that indication. During the seven-year exclusivity period, the FDA may not approve any other applications to market the same drug for the same orphan indication, except in limited circumstances, such as a showing of clinical superiority to the product with orphan drug exclusivity in that it is shown to be safer, more effective or makes a major contribution to patient care. Orphan drug exclusivity does not prevent the FDA from approving a different drug for the same disease or condition, or the same drug for a different disease or condition. Among the other benefits of orphan drug designation are tax credits for certain research and a waiver of the NDA application user fee.

Pediatric information

Under the Pediatric Research Equity Act of 2003, as amended and reauthorized by the Food and Drug Administration Amendments Act of 2007, or the FDAAA, an NDA or supplement to an NDA must contain data that are adequate to assess the safety and effectiveness of the drug for the claimed indications in all relevant pediatric subpopulations, and to support dosing and administration for each pediatric subpopulation for which the product is safe and effective. The FDA may, on its own initiative or at the request of the applicant, grant deferrals for submission of some or all pediatric data until after approval of the product for use in adults, or full or partial waivers from the pediatric data requirements. Unless otherwise required by regulation, the pediatric data requirements do not apply to products with orphan drug designation.

The Hatch-Waxman act

Abbreviated new drug applications

In seeking approval for a drug through an NDA, applicants are required to list with the FDA each patent with claims that cover the applicant's product or a method of using the product. Upon approval of a drug, each of the patents listed in the application for the drug is then published in the FDA's Approved Drug Products with Therapeutic Equivalence Evaluations, commonly known as the Orange Book. Drugs listed in the Orange Book can, in turn, be cited by potential competitors in support of approval of an abbreviated new drug application, or ANDA. Generally, an ANDA provides for marketing of a drug product that has the same active ingredients in the same strengths, dosage form and route of administration as the listed drug and has been shown to be bioequivalent through *in vitro* or *in vivo* testing or otherwise to the listed drug. ANDA applicants are not required to conduct or submit results of preclinical or clinical tests to prove the safety or effectiveness of their drug product,

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other than the requirement for bioequivalence testing. Drugs approved in this way are commonly referred to as "generic equivalents" to the listed drug, and can often be substituted by pharmacists under prescriptions written for the original listed drug.

The ANDA applicant is required to certify to the FDA concerning any patents listed for the approved product in the FDA's Orange Book, except for patents covering methods of use for which the ANDA applicant is not seeking approval. Specifically, the applicant must certify with respect to each patent that:

- > the required patent information has not been filed;
- > the listed patent has expired;
- > the listed patent has not expired, but will expire on a particular date and approval is sought after patent expiration; or
- > the listed patent is invalid, unenforceable or will not be infringed by the new product.

A certification that the new product will not infringe the already approved product's listed patents or that such patents are invalid or unenforceable is called a Paragraph IV certification. If the applicant does not challenge the listed patents or indicate that it is not seeking approval of a patented method of use, the ANDA application will not be approved until all the listed patents claiming the referenced product have expired.

If the ANDA applicant has provided a Paragraph IV certification to the FDA, the applicant must also send notice of the Paragraph IV certification to the NDA and patent holders once the ANDA has been accepted for filing by the FDA. The NDA and patent holders may then initiate a patent infringement lawsuit in response to the notice of the Paragraph IV certification. The filing of a patent infringement lawsuit within 45 days after the receipt of a Paragraph IV certification automatically prevents the FDA from approving the ANDA until the earlier of 30 months, expiration of the patent, settlement of the lawsuit or a decision in the infringement case that is favorable to the ANDA applicant.

The ANDA also will not be approved until any applicable non-patent exclusivity period, such as exclusivity for obtaining approval of a new chemical entity, for the referenced product has expired. Federal law provides a period of five years following approval of a drug containing no previously approved active moiety during which ANDAs for generic versions of those drugs cannot be submitted unless the submission contains a Paragraph IV challenge to a listed patent, in which case the submission may be made four years following the original product approval. Federal law provides for a period of three years of exclusivity during which the FDA cannot grant effective approval of an ANDA if a listed drug contains a previously approved active moiety, but FDA requires as a condition of approval new clinical trials conducted by or for the sponsor. This three-year exclusivity period often protects changes to a previously approved drug product, such as a new dosage form, route of administration, combination or indication. Under the Best Pharmaceuticals for Children Act, federal law also provides that periods of patent and non-patent marketing exclusivity listed in the Orange Book for a drug may be extended by six months if the NDA sponsor conducts pediatric studies identified by the FDA in a written request. For written requests issued by the FDA after September 27, 2007, the date of enactment of the FDAAA, the FDA must grant pediatric exclusivity no later than nine months prior to the date of expiration of patent or non-patent exclusivity in order for the six-month pediatric extension to apply to that exclusivity period.

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Section 505(b)(2) new drug applications

Most drug products obtain FDA marketing approval pursuant to an NDA or an ANDA. A third alternative is a special type of NDA, commonly referred to as a Section 505(b)(2) NDA, which enables the applicant to rely, in part, on the FDA's previous approval of a similar product, or published literature, in support of its application.

505(b)(2) NDAs often provide an alternate path to FDA approval for new or improved formulations or new uses of previously approved products. Section 505(b)(2) permits the filing of an NDA where at least some of the information required for approval comes from studies not conducted by or for the applicant and for which the applicant has not obtained a right of reference. If the 505(b)(2) applicant can establish that reliance on the FDA's previous approval is scientifically appropriate, it may eliminate the need to conduct certain preclinical or clinical studies of the new product. The FDA may also require companies to perform additional studies or measurements to support the change from the approved product. The FDA may then approve the new product candidate for all or some of the label indications for which the referenced product has been approved, as well as for any new indication sought by the Section 505(b)(2) applicant.

To the extent that the Section 505(b)(2) applicant is relying on studies conducted for an already approved product, the applicant is required to certify to the FDA concerning any patents listed for the approved product in the Orange Book to the same extent that an ANDA applicant would. As a result, approval of a 505(b)(2) NDA can be stalled until all the listed patents claiming the referenced product have expired, until any non-patent exclusivity, such as exclusivity for obtaining approval of a new chemical entity, listed in the Orange Book for the referenced product has expired, and, in the case of a Paragraph IV certification and subsequent patent infringement suit, until the earlier of 30 months, settlement of the lawsuit or a decision in the infringement case that is favorable to the Section 505(b)(2) applicant.

Combination products

The FDA regulates combinations of products that cross FDA centers, such as drug, biologic or medical device components that are physically, chemically or otherwise combined into a single entity, as a combination product. The FDA center with primary jurisdiction for the combination product will take the lead in the premarket review of the product, with the other center consulting or collaborating with the lead center.

The FDA's Office of Combination Products, or OCP, determines which center will have primary jurisdiction for the combination product based on the combination product's "primary mode of action." A mode of action is the means by which a product achieves an intended therapeutic effect or action. The primary mode of action is the mode of action that provides the most important therapeutic action of the combination product, or the mode of action expected to make the greatest contribution to the overall intended therapeutic effects of the combination product.

Often it is difficult for the OCP to determine with reasonable certainty the most important therapeutic action of the combination product. In those difficult cases, the OCP will consider consistency with other combination products raising similar types of safety and effectiveness questions, or which center has the most expertise to evaluate the most significant safety and effectiveness questions raised by the combination product.

A sponsor may use a voluntary formal process, known as a Request for Designation, when the product classification is unclear or in dispute, to obtain a binding decision as to which center will regulate the

combination product. If the sponsor objects to that decision, it may request that the agency reconsider that decision.

Overview of FDA regulation of companion diagnostics

We are developing *in vitro* and *in vivo* companion diagnostics for use in selecting the patients that we believe will respond to our cancer therapeutics.

FDA officials have issued draft guidance that, when finalized, would address issues critical to developing *in vitro* companion diagnostics, such as biomarker qualification, establishing clinical validity, the use of retrospective data, the appropriate patient population and when the FDA will require that the device and the drug be approved simultaneously. The draft guidance issued in July 2011 states that if safe and effective use of a therapeutic product depends on an *in vitro* diagnostic, then the FDA generally will require approval or clearance of the diagnostic at the same time that the FDA approves the therapeutic product. The FDA has yet to issue further guidance, and it is unclear whether it will do so, or what the scope would be.

The FDA previously has required *in vitro* companion diagnostics intended to select the patients who will respond to the cancer treatment to obtain Pre-Market Approval, or PMA, simultaneously with approval of the drug. Based on the draft guidance, and the FDA's past treatment of companion diagnostics, we believe that the FDA will require one or more of our *in vitro* companion diagnostics to obtain PMA for our companion diagnostics to identify patient populations suitable for our cancer therapies, such as the *in vitro* companion diagnostic for VS-507. The review of these *in vitro* companion diagnostics in conjunction with the review of our cancer treatments involves coordination of review by CDER and by the FDA's Center for Devices and Radiological Health Office of In Vitro Diagnostics Device Evaluation and Safety.

PMA approval pathway

A medical device, including an *in vitro* diagnostic, or IVD, to be commercially distributed in the United States must receive either 510(k) clearance or PMA approval from the FDA prior to marketing. Devices deemed by the FDA to pose the greatest risk, such as life-sustaining, life supporting or implantable devices, or devices deemed not substantially equivalent to a previously 510(k) cleared device or a preamendment class III device for which PMA applications have not been called, are placed in Class III requiring PMA approval. The PMA approval pathway requires proof of the safety and effectiveness of the device to the FDA's satisfaction.

The PMA approval pathway generally takes from one to three years or even longer from submission of the application.

A PMA application for an IVD must provide extensive preclinical and clinical trial data. Preclinical data for an IVD includes many different tests, including how reproducible the results are when the same sample is tested multiple times by multiple users at multiple laboratories. The clinical data need to establish that the test is sufficiently safe, effective and reliable in the intended use population. In addition, the FDA must be convinced that a device has clinical utility, meaning that an IVD provides information that is clinically meaningful. A biomarker's clinical significance may be obvious, or the applicant may be able to rely upon published literature or submit data to show clinical utility.

A PMA application also must provide information about the device and its components regarding, among other things, device design, manufacturing and labeling. The sponsor must pay an application fee.

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As part of the PMA review, the FDA will typically inspect the manufacturer's facilities for compliance with Quality System Regulation, or QSR, requirements, which impose elaborate testing, control, documentation and other quality assurance procedures.

Upon submission, the FDA determines if the PMA application is sufficiently complete to permit a substantive review, and, if so, the FDA accepts the application for filing. The FDA then commences an in-depth review of the PMA application. The entire process typically takes one to three years, but may take longer. The review time is often significantly extended as a result of the FDA asking for more information or clarification of information already provided. The FDA also may respond with a not approvable determination based on deficiencies in the application and require additional clinical trials that are often expensive and time-consuming and can substantially delay approval.

During the review period, an FDA advisory committee, typically a panel of clinicians, may be convened to review the application and recommend to the FDA whether, or upon what conditions, the device should be approved. Although the FDA is not bound by the advisory panel decision, the panel's recommendation is important to the FDA's overall decision making process.

If the FDA's evaluation of the PMA application is favorable, the FDA typically issues an approvable letter requiring the applicant's agreement to specific conditions, such as changes in labeling, or specific additional information, such as submission of final labeling, in order to secure final approval of the PMA. If the FDA concludes that the applicable criteria have been met, the FDA will issue a PMA for the approved indications, which can be more limited than those originally sought by the manufacturer. The PMA can include post-approval conditions that the FDA believes necessary to ensure the safety and effectiveness of the device, including, among other things, restrictions on labeling, promotion, sale and distribution. Failure to comply with the conditions of approval can result in material adverse enforcement action, including the loss or withdrawal of the approval.

Even after approval of a PMA, a new PMA or PMA supplement may be required in the event of a modification to the device, its labeling or its manufacturing process. Supplements to a PMA often require the submission of the same type of information required for an original PMA, except that the supplement is generally limited to the information needed to support the proposed change from the product covered by the original PMA.

Clinical trials

A clinical trial is almost always required to support a PMA application. In some cases, one or more smaller Investigational Device Exemption, or IDE, studies may precede a pivotal clinical trial intended to demonstrate the safety and efficacy of the investigational device.

All clinical studies of investigational devices must be conducted in compliance with the FDA's requirements. If an investigational device could pose a significant risk to patients pursuant to FDA regulations, the FDA must approve an IDE application prior to initiation of investigational use. IVD trials usually do not require an IDE, as the FDA does not judge them to be a significant risk because the results do not affect the patients in the study. However, for a trial where the IVD result directs the therapeutic care of patients with cancer, we believe that the FDA would consider the investigation to present significant risk.

An IDE application must be supported by appropriate data, such as laboratory test results, showing that it is safe to test the device in humans and that the testing protocol is scientifically sound. The FDA typically grants IDE approval for a specified number of patients. A nonsignificant risk device does not require FDA approval of an IDE. Both significant risk and nonsignificant risk investigational devices require approval from IRBs at the study centers where the device will be used.

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During the trial, the sponsor must comply with the FDA's IDE requirements for investigator selection, trial monitoring, reporting and record keeping. The investigators must obtain patient informed consent, rigorously follow the investigational plan and study protocol, control the disposition of investigational devices and comply with all reporting and record keeping requirements. Prior to granting PMA approval, the FDA typically inspects the records relating to the conduct of the study and the clinical data supporting the PMA application for compliance with applicable requirements.

Although the QSR does not fully apply to investigational devices, the requirement for controls on design and development does apply. The sponsor also must manufacture the investigational device in conformity with the quality controls described in the IDE application and any conditions of IDE approval that the FDA may impose with respect to manufacturing.

Post-market

After a device is on the market, numerous regulatory requirements apply. These requirements include: the QSR, labeling regulations, the FDA's general prohibition against promoting products for unapproved or "off label" uses, the Medical Device Reporting regulation, which requires that manufacturers report to the FDA if their device may have caused or contributed to a death or serious injury or malfunctioned in a way that would likely cause or contribute to a death or serious injury if it were to recur, and the Reports of Corrections and Removals regulation, which requires manufacturers to report recalls and field actions to the FDA if initiated to reduce a risk to health posed by the device or to remedy a violation of the FDCA.

The FDA enforces these requirements by inspection and market surveillance. If the FDA finds a violation, it can institute a wide variety of enforcement actions, ranging from a public warning letter to more severe sanctions such as: fines, injunctions and civil penalties; recall or seizure of products; operating restrictions, partial suspension or total shutdown of production; refusing requests for PMA approval of new products; withdrawing PMA approvals already granted; and criminal prosecution.

Other regulatory requirements

Any drug manufactured or distributed by us pursuant to FDA approvals are subject to pervasive and continuing regulation by the FDA, including, among other things, requirements relating to recordkeeping, periodic reporting, product sampling and distribution, advertising and promotion and reporting of adverse experiences with the product. After approval, most changes to the approved product, such as adding new indications or other labeling claims are subject to prior FDA review and approval.

The FDA may impose a number of post-approval requirements as a condition of approval of an NDA. For example, the FDA may require post-marketing testing, including Phase 4 clinical trials, and surveillance to further assess and monitor the product's safety and effectiveness after commercialization. Regulatory approval of oncology products often requires that patients in clinical trials be followed for long periods to determine the overall survival benefit of the drug.

In addition, drug manufacturers and other entities involved in the manufacture and distribution of approved drugs are required to register their establishments with the FDA and state agencies, and are subject to periodic unannounced inspections by the FDA and these state agencies for compliance with cGMP requirements. Changes to the manufacturing process are strictly regulated and often require prior FDA approval before being implemented. FDA regulations also require investigation and correction of any deviations from cGMP and impose reporting and documentation requirements upon us and any third-party manufacturers that we may decide to use. Accordingly, manufacturers must

continue to expend time, money and effort in the areas of production and quality control to maintain cGMP compliance.

Once an approval is granted, the FDA may withdraw the approval if compliance with regulatory requirements and standards is not maintained or if problems occur after the product reaches the market. Later discovery of previously unknown problems with a product, including adverse events of unanticipated severity or frequency, or with manufacturing processes, or failure to comply with regulatory requirements, may result in revisions to the approved labeling to add new safety information, imposition of post-market studies or clinical trials to assess new safety risks or imposition of distribution or other restrictions under a Risk Evaluation and Mitigation Strategy program. Other potential consequences include, among other things:

- > restrictions on the marketing or manufacturing of the product, complete withdrawal of the product from the market or product recalls;
- > fines, warning letters or holds on post-approval clinical trials;
- > refusal of the FDA to approve pending applications or supplements to approved applications, or suspension or revocation of product license approvals;
- > product seizure or detention, or refusal to permit the import or export of products; or
- > consent decrees, injunctions or the imposition of civil or criminal penalties.

The FDA strictly regulates marketing, labeling, advertising and promotion of products that are placed on the market. Drugs may be promoted only for the approved indications and in accordance with the provisions of the approved label. The FDA and other agencies actively enforce the laws and regulations prohibiting the promotion of off label uses, and a company that is found to have improperly promoted off label uses may be subject to significant liability.

Additional provisions

Anti-kickback and false claims laws

In addition to FDA restrictions on marketing of pharmaceutical products, several other types of state and federal laws have been applied to restrict certain marketing practices in the pharmaceutical industry in recent years. These laws include anti-kickback statutes and false claims statutes. The federal healthcare program anti-kickback statute prohibits, among other things, knowingly and willfully offering, paying, soliciting or receiving remuneration to induce or in return for purchasing, leasing, ordering or arranging for the purchase, lease or order of any healthcare item or service reimbursable under Medicare, Medicaid or other federally financed healthcare programs. This statute has been interpreted to apply to arrangements between pharmaceutical manufacturers on the one hand and prescribers, purchasers and formulary managers on the other. Violations of the anti-kickback statute are punishable by imprisonment, criminal fines, civil monetary penalties and exclusion from participation in federal healthcare programs. Although there are a number of statutory exemptions and regulatory safe harbors protecting certain common activities from prosecution or other regulatory sanctions, the exemptions and safe harbors are drawn narrowly, and practices that involve remuneration intended to induce prescribing, purchases or recommendations may be subject to scrutiny if they do not qualify for an exemption or safe harbor.

Federal false claims laws prohibit any person from knowingly presenting, or causing to be presented, a false claim for payment to the federal government, or knowingly making, or causing to be made, a false statement to have a false claim paid. Recently, several pharmaceutical and other healthcare companies have been prosecuted under these laws for allegedly inflating drug prices they report to

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pricing services, which in turn were used by the government to set Medicare and Medicaid reimbursement rates, and for allegedly providing free product to customers with the expectation that the customers would bill federal programs for the product. In addition, certain marketing practices, including off-label promotion, may also violate false claims laws. The majority of states also have statutes or regulations similar to the federal anti-kickback law and false claims laws, which apply to items and services reimbursed under Medicaid and other state programs, or, in several states, apply regardless of the payor.

Physician drug samples

As part of the sales and marketing process, pharmaceutical companies frequently provide samples of approved drugs to physicians. The Prescription Drug Marketing Act, or the PDMA, imposes requirements and limitations upon the provision of drug samples to physicians, as well as prohibits states from licensing distributors of prescription drugs unless the state licensing program meets certain federal guidelines that include minimum standards for storage, handling and record keeping. In addition, the PDMA sets forth civil and criminal penalties for violations.

Foreign regulation

In order to market any product outside of the United States, we would need to comply with numerous and varying regulatory requirements of other countries regarding safety and efficacy and governing, among other things, clinical trials, marketing authorization, commercial sales and distribution of our products. Whether or not we obtain FDA approval for a product, we would need to obtain the necessary approvals by the comparable regulatory authorities of foreign countries before we can commence clinical trials or marketing of the product in those countries. The approval process varies from country to country and can involve additional product testing and additional administrative review periods. The time required to obtain approval in other countries might differ from and be longer than that required to obtain FDA approval. Regulatory approval in one country does not ensure regulatory approval in another, but a failure or delay in obtaining regulatory approval in one country may negatively impact the regulatory process in others.

To date, we have not initiated any discussions with the European Medicines Agency or any other foreign regulatory authorities with respect to seeking regulatory approval for any of our products in Europe or in any other country outside the United States.

New legislation and regulations

From time to time, legislation is drafted, introduced and passed in Congress that could significantly change the statutory provisions governing the testing, approval, manufacturing and marketing of products regulated by the FDA. For example, the FDAAA discussed above was enacted in 2007. In addition to new legislation, FDA regulations and policies are often revised or interpreted by the agency in ways that may significantly affect our business and our products. It is impossible to predict whether further legislative changes will be enacted or whether FDA regulations, guidance, policies or interpretations changed or what the effect of such changes, if any, may be.

Pharmaceutical coverage, pricing and reimbursement

Significant uncertainty exists as to the coverage and reimbursement status of any drug products for which we obtain regulatory approval. Sales of any of our product candidates, if approved, will depend, in part, on the extent to which the costs of the products will be covered by third-party payors, including government health programs such as Medicare and Medicaid, commercial health insurers and

managed care organizations. The process for determining whether a payor will provide coverage for a drug product may be separate from the process for setting the price or reimbursement rate that the payor will pay for the drug product once coverage is approved. Third-party payors may limit coverage to specific drug products on an approved list, or formulary, which might not include all of the approved drugs for a particular indication.

In order to secure coverage and reimbursement for any product that might be approved for sale, we may need to conduct expensive pharmacoeconomic studies in order to demonstrate the medical necessity and cost-effectiveness of the product, in addition to the costs required to obtain FDA or other comparable regulatory approvals. Our product candidates may not be considered medically necessary or cost-effective. A payor's decision to provide coverage for a drug product does not imply that an adequate reimbursement rate will be approved. Third-party reimbursement may not be sufficient to enable us to maintain price levels high enough to realize an appropriate return on our investment in product development.

The containment of healthcare costs has become a priority of federal, state and foreign governments, and the prices of drugs have been a focus in this effort. Third-party payors are increasingly challenging the prices charged for medical products and services and examining the medical necessity and cost-effectiveness of medical products and services, in addition to their safety and efficacy. If these third-party payors do not consider our products to be cost-effective compared to other available therapies, they may not cover our products after approval 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 at a profit. The U.S. government, state legislatures and foreign governments have shown significant interest in implementing cost containment programs to limit the growth of government-paid health care costs, including price controls, restrictions on reimbursement and requirements for substitution of generic products for branded prescription drugs. Adoption of such controls and measures, and tightening of restrictive policies in jurisdictions with existing controls and measures, could limit payments for pharmaceuticals such as the drug candidates that we are developing and could adversely affect our net revenue and results.

Pricing and reimbursement schemes vary widely from country to country. Some countries provide that drug products may be marketed only after a reimbursement price has been agreed. Some countries may require the completion of additional studies that compare the cost-effectiveness of a particular product candidate to currently available therapies. For example, the European Union provides options for its member states to restrict the range of drug products for which their national health insurance systems provide reimbursement and to control the prices of medicinal products for human use. European Union member states may approve a specific price for a drug product or may instead adopt a system of direct or indirect controls on the profitability of the company placing the drug product on the market. Other member states allow companies to fix their own prices for drug products, but monitor and control company profits. The downward pressure on health care costs in general, particularly prescription drugs, has become very intense. As a result, increasingly high barriers are being erected to the entry of new products. In addition, in some countries, cross-border imports from low-priced markets exert competitive pressure that may reduce pricing within a country. There can be no assurance that any country that has price controls or reimbursement limitations for drug products will allow favorable reimbursement and pricing arrangements for any of our products.

The marketability of any products for which we receive regulatory approval for commercial sale may suffer if the government and third-party payors fail to provide adequate coverage and reimbursement. In addition, an increasing emphasis on managed care in the United States has increased and we expect will continue to increase the pressure on drug pricing. Coverage policies, third-party reimbursement rates and drug pricing regulation may change at any time. In particular, the Patient Protection and

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Affordable Care Act was enacted in the United States in March 2010 and contain provisions that may reduce the profitability of drug products, including, for example, increased rebates for drugs sold to Medicaid programs, extension of Medicaid rebates to Medicaid managed care plans, mandatory discounts for certain Medicare Part D beneficiaries and annual fees based on pharmaceutical companies' share of sales to federal health care programs. Even if favorable coverage and reimbursement status is attained for one or more products for which we receive regulatory approval, less favorable coverage policies and reimbursement rates may be implemented in the future.

EMPLOYEES

As of September 30, 2011, we had 18 full-time employees, including a total of nine employees with M.D. or Ph.D. degrees. Of these full-time employees, 11 employees are engaged in research and development activities. None of our employees is represented by a labor union or covered by a collective bargaining agreement. We consider our relationship with our employees to be good.

FACILITIES

We occupy approximately 7,484 square feet of office and laboratory space in Cambridge, Massachusetts under a lease that expires in October 2014. We believe that our facility is sufficient to meet our current needs and that suitable additional space will be available as and when needed.

LEGAL PROCEEDINGS

We are not currently a party to any material legal proceedings.

Management

The following table sets forth the name, age and position of each of our executive officers and directors.

Name	Age	Position
Christoph Westphal, M.D., Ph.D.	43	Chief Executive Officer and Director
Robert Forrester	48	Chief Operating Officer
Jonathan Pachter, Ph.D.	54	Vice President, Head of Research
Richard Aldrich	57	Director
John K. Clarke	58	Director
Ansbert Gadicke, M.D.	53	Director
Stephen Kraus	35	Director
Henri Termeer	65	Director

(1) Member of the audit committee.

(2) Member of the nominating and corporate governance committee.

(3) Member of the compensation committee.

Christoph Westphal, M.D., Ph.D. has served as our Chief Executive Officer since September 2011. He has served on our board of directors since August 2010 and as the Chairman of our board of directors since March 2011. Dr. Westphal has served as a partner of Longwood Founders Fund, LP, a venture capital investment fund, since 2010. He served as the President of SR One, the corporate venture capital arm of GlaxoSmithKline, from 2010 until 2011. Dr. Westphal has previously been involved in founding a number of biotechnology companies as chief executive officer. Dr. Westphal co-founded Sirtris Pharmaceuticals, Inc., which was acquired by GlaxoSmithKline plc in 2008, and served as its Chief Executive Officer from 2004 to 2010. He also co-founded Alnara Pharmaceuticals, Inc., Acceleron Pharma, Inc., Alnylam Pharmaceuticals, Inc., serving as its Chief Executive Officer in 2002, and Momenta Pharmaceuticals, Inc., serving as its Chief Executive Officer in 2001. Dr. Westphal serves on the Board of Fellows of Harvard Medical School and the Board of Overseers for the Boston Symphony Orchestra and is a member of the Research Advisory Council at the Massachusetts General Hospital. He earned his M.D. from Harvard Medical School, his Ph.D. in genetics from Harvard University and his B.A. from Columbia University. We believe that Dr. Westphal is qualified to serve on our board of directors due to his experience in the life sciences industry as an entrepreneur and venture capitalist and his service on the boards of directors of other life sciences companies.

Robert Forrester has served as our Chief Operating Officer since March 2011. Mr. Forrester has previously held executive level positions at both private and public life sciences companies. Prior to joining us, Mr. Forrester served as Chief Operating Officer of Forma Therapeutics, Inc. from 2010 until 2011. Previously he served as Interim President and Chief Executive Officer of CombinatoRx, Inc., now Zalicus Inc., from 2009 until 2010 and as its Executive Vice President and Chief Financial Officer from 2004 to 2009. Mr. Forrester served as Senior Vice President, Finance and Corporate Development at Coley Pharmaceuticals Group, Inc. from 2000 to 2003. He earned his LL.B. from Bristol University in England.

Jonathan Pachter, Ph.D. has served as our Vice President, Head of Research since July 2011. Prior to joining us, Dr. Pachter served as the Senior Director of Cancer Biology at OSI Pharmaceuticals, Inc., which was acquired by Astellas Pharma Inc. in 2010, from 2005 to 2011. He earned his Ph.D. in Neuroscience and his M.S. in Pharmacology from Baylor College of Medicine.

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Richard Aldrich has served as a member of our board of directors since August 2010. Mr. Aldrich has served as a partner of Longwood Founders Fund, LP, a venture capital investment fund, since 2010. He founded RA Capital Management LLC, a hedge fund, in 2004 and served as a Managing Member from 2004 to 2008 and as a Co-Founding Member from 2008 until 2011. He co-founded Sirtris Pharmaceuticals, Inc., which was acquired by GlaxoSmithKline plc in 2008, and served on its board of directors from 2004 to 2008; co-founded Concert Pharmaceuticals, Inc. and has served as chairman of its board of directors since 2009; and co-founded Alnara Pharmaceuticals, Inc. and served on its board of directors from 2008 to 2010. Mr. Aldrich also joined Vertex Pharmaceuticals, Inc. at its founding in 1989 and served as its Senior Vice President and Chief Business Officer until 2001. He earned his M.B.A from the Amos Tuck School at Dartmouth College and his B.S. from Boston College. We believe that Mr. Aldrich is qualified to serve on our board of directors due to his experience in the life sciences industry as an entrepreneur and venture capitalist and his service on the boards of directors of other life sciences companies.

John K. Clarke has served as a member of our board of directors since November 2010. Mr. Clarke co-founded Cardinal Partners, a venture capital firm, and has served as its Managing General Partner since 1997. Mr. Clarke co-founded Alnylam Pharmaceuticals, Inc. and has served on its board of directors since 2002. He also serves on the board of directors of Momenta Pharmaceuticals, Inc. Mr. Clarke also co-founded and has served as chief executive officer for a number of other companies, including Alkermes, Inc., Arris Pharmaceuticals, Inc., Cubist Pharmaceuticals, Inc. and the DNX Corporation. He earned his M.B.A. from the Wharton School of the University of Pennsylvania and his B.A. in Biology and Economics from Harvard College. We believe that Mr. Clarke is qualified to serve on our board of directors due to his financial expertise, years of experience providing advisory services to organizations in the life sciences industry and his service on the boards of directors of other life sciences companies.

Ansbert Gadicke, M.D. has served as a member of our board of directors since November 2010. Dr. Gadicke co-founded MPM Group, a venture capital firm, and has served as the managing director of MPM Asset Management LLC since 1996. He serves on the board of directors of Radius Health, Inc. and a number of privately-held life sciences companies. Dr. Gadicke previously served as a member of the board of directors of Pharmasset, Inc. from 1999 until 2007 and as a member of the board of directors of PharmAthene, Inc. from 2004 until 2007. Dr. Gadicke also serves on the Board of Fellows of Harvard Medical School. He earned his M.D. from J.W. Goethe University in Frankfurt. We believe that Dr. Gadicke is qualified to serve on our board of directors due to his experience in the life sciences industry as a venture capitalist, his training as a physician and his service on the boards of directors of other life sciences companies.

Stephen Kraus has served as a member of our board of directors since November 2010. Mr. Kraus has served as an investment professional at Bessemer Venture Partners, a venture capital firm, since 2004 and has been employed as a Partner since 2010. He serves on the board of directors of a number of privately-held life sciences companies. He previously served as a member of the board of directors of Sirtris Pharmaceuticals, Inc. from 2005 until 2007 and as a member of the board of directors of Restore Medical, Inc. from 2005 until 2008. He earned his M.B.A. from Harvard Business School and his B.A. from Yale University. We believe that Mr. Kraus is qualified to serve on our board of directors due to his experience in the life sciences industry as a venture capitalist and his service on the boards of directors of other life sciences companies.

Henri Termeer has served as a member of our board of directors since June 2011. Mr. Termeer served as President and a member of the board of directors of Genzyme Corporation from 1983 until its acquisition by sanofi-aventis U.S., LLC in 2011, its Chief Executive Officer from 1985 to 2011 and the chairman of its board of directors from 1988 to 2011. He serves on the Council of Economic

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Advisors to Massachusetts Governor Deval Patrick and as co-chair of the Leadership Counsel of the Massachusetts Life Sciences Collaborative. Mr. Termeer is also chairman emeritus of the New England Healthcare Institute and a trustee for the Boston Museum of Science. Mr. Termeer serves on the board of directors of ABIOMED Inc., AVEO Pharmaceuticals, Inc., Massachusetts General Hospital, the Massachusetts Institute of Technology Corporation and Partners HealthCare, and as chairman of the board of directors of the Federal Reserve Bank of Boston. Mr. Termeer also serves on the Board of Fellows of Harvard Medical School. He earned his M.B.A. from the Darden School at the University of Virginia. We believe Mr. Termeer is qualified to serve on our board of directors due to his senior executive experience in developing and managing Genzyme Corporation over the course of many years, his service on the boards of directors of Genzyme Corporation and other life sciences companies and his deep life sciences industry experience and knowledge.

BOARD COMPOSITION AND ELECTION OF DIRECTORS

Our board of directors is currently authorized to have seven members. In accordance with the terms of our certificate of incorporation and bylaws that will become effective upon the closing of this offering, our board of directors will be divided into three classes, class I, class II and class III, with members of each class serving staggered three-year terms. Upon the closing of this offering, the members of the classes will be divided as follows:

- the class I directors will be _____, and their term will expire at the annual meeting of stockholders to be held in 2013;
- the class II directors will be _____, and their term will expire at the annual meeting of stockholders to be held in 2014; and
- the class III directors will be _____, and their term will expire at the annual meeting of stockholders to be held in 2015.

Upon the expiration of the term of a class of directors, directors in that class will be eligible to be elected for a new three-year term at the annual meeting of stockholders in the year in which their term expires. Our directors may be removed only for cause by the affirmative vote of the holders of 75% or more of our voting stock.

Our board of directors has determined that _____ of our directors, _____, are independent directors, as defined by the applicable NASDAQ Marketplace Rules. In making such determination, the board of directors considered the relationships that each such non-employee director has with our company and all other facts and circumstances that the board of directors deemed relevant in determining their independence, including the beneficial ownership of our capital stock by each non-employee director.

There are no family relationships among any of our directors or executive officers.

BOARD COMMITTEES

Our board of directors has established an audit committee, a nominating and corporate governance committee and a compensation committee, each of which will operate, upon the closing of this offering, under a charter that has been approved by our board. The composition of each committee will be effective upon the closing of this offering.

Our board of directors has determined that all of the members of the audit committee, the compensation committee and the nominating and corporate governance committee, other than _____, are independent as defined under The NASDAQ Marketplace Rules, including, in the case of all the

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members of our audit committee, the independence requirements contemplated by Rule 10A-3 under the Securities Exchange Act of 1934.

Audit committee

The members of our audit committee are . chairs the audit committee. Upon the closing of this offering, our audit committee's responsibilities will include:

- > appointing, approving the compensation of and assessing the independence of our registered public accounting firm;
- > overseeing the work of our registered public accounting firm, including through the receipt and consideration of reports from such firm;
- > reviewing and discussing with management and the registered public accounting firm our annual and quarterly financial statements and related disclosures;
- > monitoring our internal control over financial reporting, disclosure controls and procedures and code of business conduct and ethics;
- > overseeing our internal audit function;
- > overseeing our risk assessment and risk management policies;
- > establishing policies regarding hiring employees from the registered public accounting firm and procedures for the receipt and retention of accounting related complaints and concerns;
- > meeting independently with our internal auditing staff, registered public accounting firm and management;
- > reviewing and approving or ratifying any related person transactions; and
- > preparing the audit committee report required by Securities and Exchange Commission, or SEC, rules.

All audit and non-audit services, other than *de minimis* non-audit services, to be provided to us by our independent registered public accounting firm must be approved in advance by our audit committee.

Our board of directors has determined that is an "audit committee financial expert" as defined in applicable SEC rules.

Nominating and corporate governance committee

The members of our nominating and corporate governance committee are . chairs the nominating and corporate governance committee. Upon the closing of this offering, our nominating and corporate governance committee's responsibilities will include:

- > identifying individuals qualified to become members of our board;
- > recommending to our board the persons to be nominated for election as directors and to each of our board's committees;
- > reviewing and making recommendations to our board with respect to our board leadership structure;
- > reviewing and making recommendations to our board with respect to management succession planning;
- > developing and recommending to our board corporate governance principles; and
- > overseeing an annual evaluation of our board.

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Compensation committee

The members of our compensation committee are . chairs the compensation committee. Upon the closing of this offering, our compensation committee's responsibilities will include:

- > annually reviewing and approving corporate goals and objectives relevant to the compensation of our chief executive officer;
- > determining our chief executive officer's compensation;
- > reviewing and approving, or making recommendations to our board with respect to, the compensation of our other executive officers;
- > overseeing an evaluation of our senior executives;
- > overseeing and administering our cash and equity incentive plans;
- > reviewing and making recommendations to our board with respect to director compensation;
- > reviewing and discussing annually with management our "Compensation discussion and analysis" disclosure required by SEC rules; and
- > preparing the compensation committee report required by SEC rules.

COMPENSATION COMMITTEE INTERLOCKS AND INSIDER PARTICIPATION

None of our executive officers serves as a member of the board of directors or compensation committee, or other committee serving an equivalent function, of any other entity that has one or more of its executive officers serving as a member of our board of directors or our compensation committee. During 2011, the members of our compensation committee were John K. Clarke, Stephen Kraus and Christoph Westphal, M.D., Ph.D. Neither Mr. Clarke nor Mr. Kraus is or has been an officer or employee of our company. Dr. Westphal has served as our Chief Executive Officer since September 2011. For a description of transactions between us and members of our compensation committee and affiliates of such members, please see "Transactions with related persons."

OUR CHIEF EXECUTIVE OFFICER

In addition to his role as Chairman of the board of directors and Chief Executive Officer of our company, Dr. Westphal also serves as a general partner of Longwood Founders Fund, LP, a venture capital investment fund and one of our principal stockholders. Dr. Westphal currently devotes a majority of his business time to our company with responsibility for all aspects of our business and operations. We and Dr. Westphal anticipate that he will transition to an executive Chairman role at our company in the future based on our having meaningfully advanced our discovery, research and development efforts, the overall growth of our company and our identifying and hiring a suitable successor. As executive Chairman, we expect that Dr. Westphal will continue to devote significant time to our company. In such role, we and Dr. Westphal expect that he will particularly focus on our company's strategic initiatives and key business, financial and scientific decisions. Dr. Westphal owns 2,200,000 shares of our common stock as a founder of our company, including shares currently held in a family trust. As of September 30, 2011, 1,237,500 of these shares remain subject to vesting on a quarterly basis through August 2014. In addition, Longwood Founders Fund has invested approximately \$12.0 million in our company and, upon completion of this offering, will own 7,944,444 shares of our common stock. Dr. Westphal does not receive any cash compensation from us for his services.

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COMPENSATION DISCUSSION AND ANALYSIS

Overview

This section discusses the principles underlying our policies and decisions with respect to the compensation of our executive officers and what we believe are the most important factors relevant to an analysis of these policies and decisions. This section also describes the material elements of compensation awarded to, earned by or paid to each of our named executive officers for 2011. Our "named executive officers" for 2011 consist of our three current executive officers, Christoph Westphal, M.D., Ph.D., our Chief Executive Officer, Robert Forrester, our Chief Operating Officer who also serves as our principal financial officer, and Jonathan Pachter, Ph.D., our Vice President, Head of Research; and three individuals who previously served as executives officers with us, Paul Brannelly, our current Vice President of Finance who served as our principal financial officer prior to the arrival of Mr. Forrester, Satish Jindal, Ph.D., our former President and Chief Operating Officer who remains with us as a non-executive employee, and Peter Elliott, Ph.D., our former Head of Research and Development. In addition, this section provides qualitative information regarding the manner and context in which compensation is awarded to and earned by our executive officers and is intended to provide context for the data presented in the tables and narrative that follow.

We commenced operations in November 2010 and hired each of our current executive officers in 2011. Dr. Westphal, our Chief Executive Officer, does not currently receive, and has not historically received, any compensation from us for his service as Chief Executive Officer because of his service as a general partner of Longwood Founders Fund, LP, a venture capital investment fund and one of our principal stockholders. The compensation of each of our other current executive officers is based on individual terms approved by our board of directors at the time of hire. Our board of directors is in the process of developing and implementing the executive compensation program that will be in place following this offering. This section highlights key aspects of this program that we expect to implement in 2012. Following this offering, our compensation committee will oversee these compensation policies and, together with our board of directors, will periodically evaluate the need for revisions to ensure our compensation program is competitive with the companies with which we compete for executive talent.

Objectives and philosophy of our executive compensation program

The primary objectives of the board of directors in designing our executive compensation program are to:

- attract, retain and motivate experienced and talented executives;
- ensure executive compensation is aligned with our corporate strategies, research and development programs and business goals;
- recognize the individual contributions of executives while fostering a shared commitment among executives by aligning their individual goals with our corporate goals;
- promote the achievement of key strategic, development and operational performance measures by linking compensation to the achievement of measurable corporate and individual performance goals; and
- align the interests of our executives with our stockholders by rewarding performance that leads to the creation of stockholder value.

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Each of our named executive officers was hired by us before our board of directors established a formal executive compensation program. To achieve these objectives in the future, we expect that our board of directors and compensation committee will evaluate our executive compensation program for 2012 with the goal of setting and maintaining compensation at levels that are justifiable based on each executive's level of experience, performance and responsibility and that the board believes are competitive with those of other companies in our industry and our region that compete with us for executive talent. In addition, beginning in 2012, we expect that our executive compensation program will tie a substantial portion of each executive's overall compensation to key strategic, financial and operational goals. We have provided, and expect to continue to provide, a portion of our executive compensation in the form of stock options and restricted stock grants that vest over time, which we believe helps to retain our executives and aligns their interests with those of our stockholders by allowing them to participate in the longer term success of our company as reflected in stock price appreciation.

Use of compensation consultants and market benchmarking

For purposes of determining total compensation and the primary components of compensation for our executive officers in 2011, we did not retain the services of a compensation consultant or use survey information or compensation data to engage in benchmarking. Beginning with 2012 compensation, we expect that our compensation committee will consider publicly available compensation data for national and regional companies in the biotechnology industry to help guide its executive compensation decisions at the time of hiring and for subsequent adjustments in compensation. In connection with designing our compensation program for future periods, our board of directors recently retained the services of Pearl Meyer & Partners, or Pearl Meyer, an independent compensation consultant, to provide additional comparative data on executive compensation practices in our industry and to advise on our executive compensation program generally. Although we expect that our board of directors and compensation committee will consider Pearl Meyer's advice and recommendations about our executive compensation program, the board of directors and compensation committee will ultimately make their own decisions about these matters.

We anticipate that Pearl Meyer will provide our board of directors and compensation committee with comparative data showing where our total compensation and each element of our compensation rate among both public and private companies in the biotechnology and life sciences industry generally and a peer group of publicly-traded companies in the life science industry at a stage of development, market capitalization and size comparable to ours with which the board of directors and compensation committee believe we compete for executive talent. We currently expect that the companies to be included in this peer group will be:

Aegerion Pharmaceuticals, Inc.
Alnylam Pharmaceuticals, Inc.
Amicus Therapeutics, Inc.
Anacor Pharmaceuticals, Inc.
Anthera Pharmaceuticals, Inc.
ARIAD Pharmaceuticals, Inc.
Aveo Pharmaceuticals, Inc.
Curis Inc.

Cytokinetics, Inc.
Endocyte, Inc.
Infinity Pharmaceuticals, Inc.
Ironwood Pharmaceuticals, Inc.
Myrexix, Inc.
Osiris Therapeutics, Inc.
Synta Pharmaceuticals Corp.
Zalicus Inc.

This peer group is subject to change, and we anticipate that our board of directors and compensation committee will periodically review and update the list. The peer group will be used for purposes of gathering data to help develop our executive compensation practices and guide our compensation

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decisions. We also expect that our compensation consultant will make suggestions about our executive compensation practices based on the data it provides to us as well as compensation trends in our industry. However, although we expect that the board of directors and compensation committee will consider peer group and other industry compensation data and the recommendations of our compensation consultant when making decisions related to executive compensation, we do not expect that they will make adjustments to overall executive compensation or any element thereof solely or primarily to target a specified threshold level of compensation or market benchmark within the peer group, our larger industry or some other group of comparable companies or to act on the recommendations of our compensation consultant.

Annual compensation review process

We expect to conduct annual compensation reviews beginning in 2012. As part of the reviews we conduct in 2012, we expect to address bonus awards for 2011, our first full year of operations, and for all aspects of compensation for 2012. During the first quarter of 2012 and each subsequent year, we expect to evaluate each executive officer's performance during the prior year. We expect that our chief executive officer will evaluate each executive other than himself from his own perspective and based on input from others within our company. This process will lead to a recommendation by the chief executive officer to the compensation committee with respect to each executive officer, other than himself, as to:

- the level of contributions made to the general management and guidance of the company;
- the need for salary increases;
- the amount of bonuses to be paid, including the achievement of stated corporate and individual performance goals with respect to the annual review for performance in 2012 and future years; and
- whether or not equity incentive awards should be made.

These recommendations will be reviewed by our compensation committee and taken into account when it makes a final determination on all such matters.

Components of our executive compensation program

The primary elements of our executive compensation program are:

- base salary;
- annual performance-based cash bonuses;
- stock-based awards;
- broad-based health and welfare benefits; and
- severance and change in control benefits.

We do not, and do not expect in the future to, have a formal or informal policy for allocating between long-term and short-term compensation, between cash and non-cash compensation or among the different forms of non-cash compensation. Instead, our board of directors, after reviewing data it considers relevant, has determined subjectively what it believes to be the appropriate level and mix of the various compensation components. Beginning with 2012, we expect that our compensation committee also will consider information provided to it by our compensation consultant in making this determination. Ultimately, the objective in allocating between long-term and currently paid

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compensation is to ensure adequate base compensation to attract and retain personnel, while providing incentives to maximize long-term value for our company and our stockholders. Therefore, we provide cash compensation in the form of base salary to meet competitive salary norms and in the form of bonus compensation to incentivize and reward superior performance on an annual basis. To further focus our executives on longer-term performance and the creation of stockholder value, we rely upon equity-based awards that vest over a meaningful period of time. In addition, we provide our executives with benefits that are generally available to all our employees, including health and dental insurance, life and disability insurance and a 401(k) plan. Finally, we offer our executives severance benefits to incentivize them to continue to achieve stockholder value in connection with change in control situations.

We have employment agreements with two of our named executive officers, Mr. Forrester and Dr. Pachter. These employment agreements provide for specific base salaries, target annual bonuses and severance and change in control arrangements for these executive officers. Dr. Pachter also received a signing bonus and reimbursement of certain relocation expenses in connection with the commencement of his employment. Details of these employment agreements are provided below under the heading "—Employment agreements."

Base salary

We use base salaries to recognize the experience, skills, knowledge and responsibilities of our employees, including our executive officers. Base salaries for our named executive officers were established through arm's-length negotiation at the time the executive was hired, taking into account the position for which the executive was considered and the executive's qualifications, prior experience and prior salary. None of our named executive officers is currently party to an employment agreement that provides for automatic or scheduled increases in base salary. However, we expect that our compensation committee will annually review and evaluate, with input from our chief executive officer, the need for adjustment of the base salaries of our executives based on changes and expected changes in the scope of an executive's responsibilities, including promotions, the individual contributions made by and performance of the executive during the prior year, the executive's performance over a period of years, overall labor market conditions, the relative ease or difficulty of replacing the executive with a well-qualified person, our overall growth and development as a company, general salary trends in our industry and among our peer group and where the executive's salary falls in the salary range presented by that data. In making decisions regarding salary increases, we may also draw upon the experience of members of our board of directors with other companies. We do not expect that our executive officers will receive any formulaic base salary increase, and we do not expect to target the base salaries of our named executive officers at a specified compensation level within our peer group.

Dr. Westphal does not currently receive, and has not historically received, a base salary from us. Mr. Forrester's 2011 annual base salary is \$310,000 pursuant to the terms of the employment agreement that we entered into with him upon the commencement of his employment in March 2011. Dr. Pachter's 2011 annual base salary is \$280,000 pursuant to the terms of the employment agreement that we entered into with him upon the commencement of his employment in July 2011. Our board of directors approved the base salaries of Mr. Forrester and Dr. Pachter based on the recommendations of Dr. Westphal. In making his recommendations, Dr. Westphal considered the factors discussed above, including the qualifications, prior experience and prior salary of each of Mr. Forrester and Dr. Pachter.

Mr. Brannelly's 2011 base salary was \$125,000 for the first 8 months when he was serving as our part-time employee and was increased to \$250,000 in September 2011 when he began serving as our full-time employee. Dr. Jindal was paid \$300,000 in total salary for 2011 as our former President and Chief Operating Officer and in his current capacity as our non-executive employee pursuant to the

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terms of a transition services agreement we entered into with him in February 2011, which provides a current 2011 annual base salary of \$300,000 through mid-April 2012. Prior to his departure in August 2011, Dr. Elliott was paid \$108,000 in total salary for 2011. As with our current executive officers, the base salary for each of these individuals was determined at the time of hire based on the factors set forth above.

Our board of directors has not increased the base salaries for our current named executive officers for 2012. We believe that the base salaries established for our named executive officers for 2012 are aligned with our executive compensation objectives stated above and are competitive with those of similarly-situated companies. Our compensation committee may reevaluate this assessment as part of its annual review process.

Annual performance-based cash bonus

Because we only commenced operations in November 2010, none of our named executive offices received an annual cash bonus for 2010. Our board of directors has not yet determined the amount of any annual cash bonuses for our current executive officers for 2011. We expect that our compensation committee will subjectively determine the amount of any annual cash bonus for each executive officer other than Dr. Westphal based on the annual compensation review process discussed above. We did not establish specific corporate or individual performance goals for our executive officers for 2011.

We are in the process of designing an annual cash bonus program to reward our named executive officers in the future. Beginning with 2012, we expect that our annual cash bonus program will be based upon the achievement of specified annual corporate and individual goals that will be established in advance by our compensation committee. We expect that our annual cash bonus program will emphasize pay-for-performance and will be intended to closely align executive compensation with achievement of specified operating results as the amount will be calculated on the basis of percentage of corporate goals achieved. The performance goals established by our compensation committee beginning with the 2012 fiscal year will be based on the business strategy of the company and the objective of building shareholder value. We expect that there will be three steps to determine if and the extent to which an annual cash bonus is payable to a named executive officer. First, at the beginning of the year, our compensation committee will determine the target annual cash incentive award for the named executive officer based on a percentage of the officer's annual base salary for that year. Second, the compensation committee will establish the specific performance goals, including both corporate and individual objectives, that must be met for the officer to receive the award. Third, shortly after the end of the year, the compensation committee will determine the extent to which these performance goals were met and the amount of the award. We expect that, beginning in 2012, our compensation committee will work with our chief executive officer to develop corporate and individual goals that they believe can be reasonably achieved with hard work over the course of the year.

We do not expect to pay Dr. Westphal an annual cash bonus for 2011. In accordance with the terms of their employment agreements with us, Mr. Forrester and Dr. Pachter each are eligible to receive an annual bonus for 2011 based on a percentage of their base salary. Mr. Forrester is eligible to receive an annual bonus of up to 35% of his base salary, and Dr. Pachter is eligible to receive an annual bonus of up to 30% of his base salary. We expect that the bonus payable to each of Mr. Forrester and Dr. Pachter will be pro rated to reflect the date of commencement of employment with us. We expect that our board of directors will make a determination in the first quarter of 2012 about an annual bonus for 2011 for Mr. Brannelly. In accordance with the terms of his transition services agreement with us, Dr. Jindal is eligible to receive an annual bonus for 2011 of up to 20% of his base salary. Dr. Elliott has not received nor is he eligible to receive an annual cash bonus from us for 2011.

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Stock-based awards

Our equity award program is the primary vehicle for offering long-term incentives to our executives. While we do not have any equity ownership guidelines for our executives, we believe that equity grants provide our executives with a strong link to our long-term performance, create an ownership culture and help to align the interests of our executives and our stockholders. In addition, the vesting feature of our equity awards contributes to executive retention by providing an incentive for our executives to remain in our employ during the vesting period. Prior to this offering, our executives were eligible to participate in our 2010 equity incentive plan, and all equity awards granted in 2011 were pursuant to the 2010 equity incentive plan. Following the closing of this offering, our employees and executives will be eligible to receive stock-based awards pursuant to our 2012 stock incentive plan. Under our 2012 stock incentive plan, executives will be eligible to receive grants of stock options, restricted stock awards, restricted stock unit awards, stock appreciation rights and other stock-based equity awards at the discretion of our board of directors.

Our equity awards have typically been in the form of stock options. Because our executives profit from stock options only if our stock price increases relative to the stock option's exercise price, we believe stock options provide meaningful incentives for our executives to achieve increases in the value of our stock over time. While we currently expect to continue to use stock options as the primary form of equity awards that we grant, we have used and may in the future continue to use alternative forms of equity awards, such as restricted stock. To date, we have used equity awards to compensate our executive officers in the form of initial grants in connection with the commencement of employment. In the future, we also generally plan to grant equity awards on an annual basis to our executive officers. We may also make additional discretionary grants, typically in connection with the promotion of an employee, to reward an employee, for retention purposes or in other circumstances recommended by management. In general, the equity awards that we have granted to our executives vest with respect to 25% of the shares on the first anniversary of the grant date and with respect to the remaining shares in approximately equal quarterly installments through the fourth anniversary of the grant date. Vesting ceases upon termination of employment and exercise rights cease shortly after termination of employment. Prior to the exercise of a stock option, the holder has no rights as a stockholder with respect to the shares subject to such option, including voting rights or the right to receive dividends or dividend equivalents.

We have granted stock options with exercise prices that are set at no less than the fair value of shares of our common stock on the date of grant as determined by our board of directors. The exercise price of all stock options granted after the closing of this offering will be equal to the fair value of shares of our common stock on the date of grant, which generally will be determined by reference to the closing market price of our common stock on the date of grant.

We have not granted any equity awards to Dr. Westphal in connection with his service as our Chief Executive Officer. As one of our co-founders, we issued and sold to Dr. Westphal 2,200,000 shares of our common stock in August 2010 in connection with our formation. These shares are subject to repurchase by us pursuant to the terms of a restricted stock agreement, as further described under the heading "Transactions with related persons—Restricted stock grants to co-founders."

In April 2011, in recognition of the commencement of Mr. Forrester's employment with us, we issued and sold to Mr. Forrester 448,000 shares of our common stock pursuant to his employment agreement. These shares are subject to repurchase by us pursuant to the terms of a restricted stock agreement. These shares vest with respect to 25% of the shares on the first anniversary of his date of hire and with respect to the remaining shares in approximately equal monthly installments through the

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fourth anniversary of his date of hire. The purchase price of the restricted stock was \$0.08 per share, the fair value of our common stock on the date of grant as determined by our board of directors.

In September 2011, in recognition of the commencement of Dr. Pachter's employment with us, we granted Dr. Pachter an option to purchase 240,000 shares of our common stock pursuant to his employment agreement. This option vests with respect to 25% of the shares on the first anniversary of his date of hire and with respect to the remaining shares in approximately equal quarterly installments through the fourth anniversary of his date of hire. The exercise price of this option is \$0.55 per share, the fair value of our common stock on the date of grant as determined by our board of directors.

We did not grant any equity awards to Mr. Brannelly in 2011. In December 2010, in recognition of the commencement of Mr. Brannelly's employment with us, we granted Mr. Brannelly an option to purchase 210,000 shares of our common stock. This option vests with respect to 25% of the shares on the first anniversary of his date of hire and with respect to the remaining shares in approximately equal quarterly installments through the fourth anniversary of his date of hire. The exercise price of this option is \$0.08 per share, the fair value of our common stock on the date of grant as determined by our board of directors.

We did not grant any equity grants to Dr. Jindal in 2011. As one of our co-founders, we issued and sold to Dr. Jindal 1,250,000 shares of our common stock in August 2010 in connection with our formation. Pursuant to a restricted stock agreement with Dr. Jindal, as amended, we repurchased 582,681 shares from him, as further described under the heading "Transactions with related persons—Restricted stock grants to co-founders."

In April 2011, in recognition of the commencement of Dr. Elliott's employment with us, we issued and sold to Dr. Elliott 448,000 shares of our common stock pursuant to his employment agreement at a price of \$0.08 per share, the fair value of our common stock on the date of grant as determined by our board of directors. Pursuant to a restricted stock agreement with Dr. Elliott, we repurchased 420,000 shares in connection with Dr. Elliott's transition from our employee to a member of our scientific advisory board.

Benefits and other compensation

We believe that establishing competitive benefit packages for our employees is an important factor in attracting and retaining highly qualified personnel. We maintain broad-based benefits that are provided to all employees, including health and dental insurance, life and disability insurance and a 401(k) plan. All of our executives are eligible to participate in all of our employee benefit plans, in each case on the same basis as other employees. Under our 401(k) plan, we match 100% of employee contributions up to an amount equal to 3% of the employee's salary and then match 50% of employee contributions up to an amount equal to an additional 2% of the employee's salary. The match vests immediately. Consistent with our compensation philosophy, we intend to continue to maintain our current benefits for our named executive officers.

In certain circumstances, we may award cash signing bonuses or may reimburse relocation expenses when executives first join us. Whether a signing bonus is paid or relocation expenses are reimbursed, and the amount of either such benefit, is determined by our board of directors on a case-by-case basis based on the specific hiring circumstances and the recommendation of our chief executive officer.

Dr. Pachter, who joined us in June 2011, received a signing bonus of \$50,000 payable upon commencement of employment. We also reimbursed Dr. Pachter for \$30,000 of relocation expenses in connection with his move to our area to commence employment with us.

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Severance and change in control benefits

Pursuant to employment agreements we have entered into with certain of our executives, these executives are entitled to specified benefits in the event of the termination of their employment under specified circumstances, including termination following a change in control of our company. Please refer to "—Employment agreements" for a more detailed discussion of these benefits. We have provided estimates of the value of the severance payments made and other benefits provided to executives under various termination circumstances, under the heading "—Potential payments upon termination or change in control" below.

We believe providing these benefits helps us compete for executive talent. After reviewing the practices of companies represented in the compensation peer group, we believe that our severance and change in control benefits are generally in line with severance packages offered to executives of the companies in our peer group. Based on the substantial business experience of the members of our board of directors, we believe that our severance and change in control benefits are generally in line with severance packages offered to executives by companies at comparable stages of development in our industry and related industries.

Risk considerations in our compensation program

Our board of directors is evaluating the philosophy and standards on which our compensation plans will be implemented across our company. It is our belief that our compensation programs do not, and in the future will not, encourage inappropriate actions or risk taking by our executive officers. We do not believe that any risks arising from our employee compensation policies and practices are reasonably likely to have a material adverse effect on our company. In addition, we do not believe that the mix and design of the components of our executive compensation program will encourage management to assume excessive risks. We believe that our current business process and planning cycle fosters the behaviors and controls that would mitigate the potential for adverse risk caused by the action of our executives. We believe that the following aspects of our executive compensation program that we plan to implement will mitigate the potential for adverse risk caused by the action of our executives:

- annual establishment of corporate and individual objectives for our performance-based cash bonus programs for our executive officers, which we expect to be consistent with our annual operating and strategic plans, designed to achieve the proper risk/reward balance and not require excessive risk taking to achieve;
- the mix between fixed and variable, annual and long-term and cash and equity compensation, which we expect to be designed to encourage strategies and actions that balance the company's short-term and long-term best interests; and
- equity incentive awards that vest over a period of time, which we believe will encourage executives to take a long-term view of our business.

Tax and accounting considerations

Section 162(m) of the Internal Revenue Code of 1986, as amended, which will become applicable to us upon the closing of this offering, generally disallows a tax deduction for compensation in excess of \$1.00 million paid to our chief executive officer and our three other most highly paid officers (other than the chief executive officer and the chief financial officer). Qualifying performance-based compensation is not subject to the deduction limitation if specified requirements are met. We will periodically review the potential consequences of Section 162(m) and we generally intend to structure

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the performance-based portion of our executive compensation, where feasible, to comply with exemptions in Section 162(m) so that the compensation will remain tax deductible to us. However, the board of directors may, in its judgment, authorize compensation payments that do not comply with the exemptions in Section 162(m) when it believes that such payments are appropriate to attract and retain executive talent and are in the best interests of our stockholders.

We account for equity compensation paid to our employees in accordance with Financial Accounting Standards Board, or FASB, Accounting Standard Codification Topic 718, *Compensation-Stock Compensation*, or ASC 718, which requires us to measure and recognize compensation expense in our financial statements for all share-based payments based on an estimate of their fair value over the service period of the award. We record cash compensation as an expense at the time the obligation is accrued.

SUMMARY COMPENSATION TABLE

The following table sets forth the total compensation awarded to, earned by or paid to our named executive officers during 2011.

Name and principal position	Year	Salary (\$)	Bonus (\$)⁽¹⁾	Stock awards (\$)⁽²⁾	Option awards (\$)⁽³⁾	All other compensation (\$)⁽⁴⁾	Total (\$)
Christoph Westphal, M.D., Ph.D. ⁽⁵⁾ <i>Chief Executive Officer</i>	2011	—	—	—	—	—	—
Robert Forrester <i>Chief Operating Officer</i>	2011	252,769	—	35,840	—	—	288,609
Jonathan Pachter, Ph.D. <i>Vice President, Head of Research</i>	2011	129,231	50,000 ⁽⁶⁾	—	81,336	30,000	290,567
Paul Brannelly <i>Vice President of Finance, Former principal financial officer</i>	2011	164,423	—	—	—	—	164,423
Satish Jindal, Ph.D. ⁽⁷⁾ <i>Former President and Chief Operating Officer</i>	2011	300,000	—	—	—	—	300,000
Peter Elliott, Ph.D. ⁽⁸⁾ <i>Former Head of Research and Development</i>	2011	108,500	—	35,840	—	—	144,340

(1) Our compensation committee has not yet determined the amounts of discretionary annual cash bonuses payable to our executive officers for 2011. We expect that our compensation committee will determine the amounts of these bonuses during the first quarter of 2012, at which time we will disclose such amounts in a filing under Item 5.02(f) of Form 8-K.

(2) The amounts in the "Stock awards" column reflect the aggregate grant date fair value of restricted stock granted during the year computed in accordance with the provisions of ASC 718, excluding the impact of estimated repurchases by us related to service-based vesting conditions. The assumptions that we used to calculate these amounts are discussed in Note 6 to our financial statements appearing at the end of this prospectus.

(3) The amounts in the "Option awards" column reflect the aggregate grant date fair value of stock options granted during the year computed in accordance with the provisions of ASC 718, excluding the impact of estimated forfeitures related to

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service-based vesting conditions (which in our case were none). The assumptions that we used to calculate these amounts are discussed in Note 6 to our financial statements appearing at the end of this prospectus.

(4) The amounts in the "All other compensation" column reflect the value of perquisites and other personal benefits, which are further detailed below.

Name	401(k) match (\$)	Group life insurance premium (\$)	Relocation expense reimbursement (\$)	Total (\$)
Christoph Westphal, M.D., Ph.D.				
Robert Forrester				
Jonathan Pachter, Ph.D.			30,000	
Paul Brannelly				
Satish Jindal, Ph.D.				
Peter Elliott, Ph.D.				

(5) Dr. Westphal does not receive any compensation from us for his service.

(6) The bonus amount for Dr. Pachter represents a signing bonus of \$50,000 paid upon the commencement of his employment with us.

(7) In February 2011, Dr. Jindal transitioned from his former role as our President and Chief Operating Officer to his current capacity as our non-executive employee pursuant to the terms of a transition services agreement.

(8) Dr. Elliott's employment with us ended in August 2011.

GRANTS OF PLAN-BASED AWARDS IN 2011

The following table sets forth information regarding grants of plan-based awards to our named executive officers during 2011.

Name	Grant date	All other stock awards: number of shares of stock (#)	All other option awards: number of securities underlying options (#)	Exercise price of option awards (\$/share) ⁽¹⁾	Grant date fair value of stock and option awards (\$) ⁽²⁾
Christoph Westphal, M.D., Ph.D.	—	—	—	—	—
Robert Forrester	3/3/2011	448,000 ⁽³⁾	—	—	35,840
Jonathan Pachter, Ph.D.	9/6/2011	—	240,000 ⁽⁴⁾	0.55	81,336
Paul Brannelly	—	—	—	—	—
Satish Jindal, Ph.D.	—	—	—	—	—
Peter Elliott, Ph.D.	3/3/2011	448,000 ⁽⁵⁾	—	—	35,840

(1) Option awards have been granted with exercise prices equal to the fair value of our common stock on the date of grant. For a discussion of our methodology for determining the fair value of our common stock, see "Management's discussion and analysis of financial condition and results of operations—Critical accounting policies and significant estimates."

(2) The amounts in the "Grant date fair value of stock and option awards" column reflect the grant date fair value of stock and option awards granted in 2011 calculated in accordance with ASC 718.

(3) Mr. Forrester paid \$0.08 per share for the stock award. Stock award vests with respect to 25% of the shares on the first anniversary of Mr. Forrester's date of hire, which was in March 2011, and with respect to the remaining shares in approximately equal quarterly installments through the first anniversary of his date of hire.

(4) Option award vests with respect to 25% of the shares on the first anniversary of Dr. Pachter's date of hire, which was in July 2011, and with respect to the remaining shares in approximately equal quarterly installments through the fourth anniversary of his date of hire.

(5) Dr. Elliott paid \$0.08 per share for the stock award. Pursuant to a restricted stock agreement with Dr. Elliott, we repurchased 420,000 shares in connection with Dr. Elliott's transition from our employee to a member of our scientific advisory board. The remaining shares of stock are fully vested.

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OUTSTANDING EQUITY AWARDS AT DECEMBER 31, 2011

The following table sets forth information regarding outstanding equity awards held by our named executive officers as of December 31, 2011.

Name	Option awards				Stock awards	
	Number of securities underlying unexercised options exercisable (#)	Number of securities underlying unexercised options unexercisable (#)	Option exercise price (\$)	Option expiration date	Number of shares that have not vested (#)	Market value of shares that have not vested (\$)
Christoph Westphal, M.D., Ph.D.	—	—	—	—	1,134,375 ⁽¹⁾	(2)
Robert Forrester	—	—	—	—	448,000 ⁽³⁾	(2)
Jonathan Pachter, Ph.D.	0	240,000 ⁽⁴⁾	0.55	9/6/2021	—	—
Paul Brannelly	0	210,000 ⁽⁵⁾	0.08	12/3/2020	—	—
Satish Jindal, Ph.D.	—	—	—	—	61,851 ⁽⁶⁾	(2)
Peter Elliott, Ph.D.	—	—	—	—	—	—

- (1) Stock award vested with respect to 25% of the shares on the grant date, which was in August 2010, and vests with respect to the remaining shares in approximately equal quarterly installments through the fourth anniversary of the grant date.
- (2) The market value of the stock award is based on the fair value of \$ _____ per share as of December 31, 2011. For a discussion of our methodology for determining the fair value of our common stock, see "Management's discussion and analysis of financial condition and results of operations—Critical accounting policies and significant estimates."
- (3) Stock award vests with respect to 25% of the shares on the first anniversary of Mr. Forrester's date of hire, which was in March 2011, and with respect to the remaining shares in approximately equal quarterly installments through the fourth anniversary of his date of hire.
- (4) Option award vests with respect to 25% of the shares on the first anniversary of Dr. Pachter's date of hire, which was in July 2011, and with respect to the remaining shares in approximately equal quarterly installments through the fourth anniversary of his date of hire.
- (5) Option award vests with respect to 25% of the shares on the first anniversary of Mr. Brannelly's date of hire, which was in November 2010, and with respect to the remaining shares in approximately equal quarterly installments through the fourth anniversary of his date of hire.
- (6) Stock award vests in installments specified in a restricted stock agreement with Dr. Jindal, as amended, and will be fully vested in February 2012.

Executive compensation**OPTIONS EXERCISED AND STOCK VESTED**

None of our named executive officers exercised any options during 2011. The following table sets forth information regarding the vesting of stock during 2011 for each of our named executive officers.

Name	Stock awards	
	Number of shares acquired on vesting (#)	Value realized on vesting (\$) ⁽¹⁾
Christoph Westphal, M.D., Ph.D.	412,500 ⁽²⁾	229,969
Robert Forrester	0	—
Jonathan Pachter, Ph.D.	—	—
Paul Brannelly	—	—
Satish Jindal, Ph.D.	234,375 ⁽³⁾	130,663
Peter Elliott, Ph.D.	28,000 ⁽⁴⁾	15,400

(1) The value realized upon vesting is equal to the fair value of our common stock on the vesting date multiplied by number of shares acquired on vesting.

(2) Stock award vested with respect to 25% of the shares on the grant date, which was in August 2010, and vests with respect to the remaining shares in approximately equal quarterly installments through the fourth anniversary of the grant date.

(3) Stock award vests in installments specified in a restricted stock agreement with Dr. Jindal, as amended, and will be fully vested in February 2012.

(4) Pursuant to a restricted stock agreement with Dr. Elliott, we repurchased 420,000 shares in connection with Dr. Elliott's transition from our employee to a member of our scientific advisory board. The remaining shares of stock are fully vested.

PENSION BENEFITS

We do not maintain any defined benefit pension plans.

NONQUALIFIED DEFERRED COMPENSATION

We do not maintain any nonqualified deferred compensation plans.

STOCK OPTION AND OTHER EMPLOYEE BENEFIT PLANS

The two equity incentive plans described in this section are the 2010 equity incentive plan and the 2012 stock incentive plan. Prior to this offering, we granted awards to eligible participants under the 2010 equity incentive plan. Following the closing of this offering, we expect to grant awards to eligible participants under the 2012 stock incentive plan, which we expect to adopt prior to the closing of this offering.

2012 stock incentive plan

We expect our board of directors to adopt and our stockholders to approve the 2012 stock incentive plan, which will become effective immediately prior to the closing of this offering. The 2012 stock incentive plan provides for the grant of incentive stock options, non-statutory stock options, stock appreciation rights, restricted stock awards, restricted stock units and other stock-based awards. Upon effectiveness of the plan, the number of shares of our common stock that will be reserved for issuance under the 2012 stock incentive plan will be the sum of _____ shares plus the number of shares (up to _____) equal to the sum of the number of shares of our common stock then available for issuance

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under the 2010 equity incentive plan described below and the number of shares of our common stock subject to outstanding awards under the 2010 equity incentive plan, described below, that expire, terminate or are otherwise surrendered, cancelled, forfeited or repurchased by us at their original issuance price pursuant to a contractual repurchase right.

Our employees, officers, directors, consultants and advisors are eligible to receive awards under the 2012 stock incentive plan. However, incentive stock options may only be granted to our employees. The maximum number of shares of our common stock with respect to which awards may be granted to any participant under the 2012 stock incentive plan is _____ per calendar year. For purposes of this limit on the maximum number of shares that may be awarded to any participant, the combination of an option in tandem with a stock appreciation right will be treated as a single award.

Pursuant to the terms of the 2012 stock incentive plan, our board of directors administers the plan and, subject to any limitations in the plan, selects the recipients of awards and determines:

- the number of shares of our common stock covered by options and the dates upon which the options become exercisable;
- the type of options to be granted;
- the duration of options, which may not be in excess of ten years;
- the exercise price of options, which must be at least equal to the fair market value of our common stock on the date of grant; and
- the number of shares of our common stock subject to and the terms of any stock appreciation rights, restricted stock awards, restricted stock units or other stock-based awards and the terms and conditions of such awards, including conditions for repurchase, issue price and repurchase price.

If our board of directors delegates authority to an executive officer to grant awards under the 2012 stock incentive plan, the executive officer has the power to make awards to all of our employees, except executive officers. Our board of directors will fix the terms of the awards to be granted by such executive officer, including the exercise price of such awards, and the maximum number of shares subject to awards that such executive officer may make.

Upon a merger or other reorganization event, our board of directors may, in its sole discretion, take any one or more of the following actions pursuant to the 2012 stock incentive plan as to some or all outstanding awards other than restricted stock:

- provide that all outstanding awards shall be assumed, or substantially equivalent awards shall be substituted, by the acquiring or successor corporation (or an affiliate thereof);
- upon written notice to a participant, provide that all of the participant's unexercised awards will terminate immediately prior to the consummation of such reorganization event unless exercised by the participant;
- provide that outstanding awards shall become exercisable, realizable or deliverable, or restrictions applicable to an award shall lapse, in whole or in part, prior to or upon such reorganization event;
- in the event of a reorganization event pursuant to which holders of shares of our common stock will receive a cash payment for each share surrendered in the reorganization event, make or provide for a cash payment to the participants with respect to each award held by a participant equal to (1) the number of shares of common stock subject to the vested portion of the award (after giving effect to any acceleration of vesting that occurs upon or immediately prior to such

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reorganization event) multiplied by (2) the excess, if any, of the cash payment for each share surrendered in the reorganization event over the exercise, measurement or purchase price of such award and any applicable tax withholdings, in exchange for the termination of such award;

→ provide that, in connection with a liquidation or dissolution, awards shall convert into the right to receive liquidation proceeds.

Our board of directors does not need to take the same action with respect to all awards and may take different actions with respect to portions of the same award.

In the case of certain restricted stock units, no assumption or substitution is permitted, and the restricted stock units will instead be settled in accordance with the terms of the applicable restricted stock unit agreement.

Upon the occurrence of a reorganization event other than a liquidation or dissolution, the repurchase and other rights with respect to outstanding restricted stock awards will continue for the benefit of the successor company and will, unless the board of directors may otherwise determine, apply to the cash, securities or other property into which shares of our common stock are converted or exchanged pursuant to the reorganization event. Upon the occurrence of a reorganization event involving a liquidation or dissolution, all restrictions and conditions on each outstanding restricted stock award will automatically be deemed terminated or satisfied, unless otherwise provided in the agreement evidencing the restricted stock award.

At any time, our board of directors may, in its sole discretion, provide that any award under the 2012 stock incentive plan will become immediately exercisable in full or in part, free of some or all restrictions or conditions, or otherwise realizable in full or in part.

No award may be granted under the 2012 stock incentive plan on or after _____, 2022. Our board of directors may amend, suspend or terminate the 2012 stock incentive plan at any time, except that stockholder approval may be required to comply with applicable law or stock market requirements.

2010 equity incentive plan

Our 2010 equity incentive plan was adopted by our board of directors and approved by our stockholders in November 2010. Upon the closing of this offering and the approval of the 2012 stock incentive plan, we do not expect to grant any additional awards under the 2010 equity incentive plan.

The 2010 equity incentive plan provides for the grant of incentive stock options, non-statutory stock options, restricted stock awards, restricted stock units and stock appreciation rights. The number of shares of our common stock that are reserved for issuance under the 2010 equity incentive plan is 1,999,348.

Our employees, directors, consultants and advisors are eligible to receive awards under the 2010 equity incentive plan. However, incentive stock options may only be granted to our employees.

Upon a merger or other reorganization event, our board of directors may, in its sole discretion, take any one or more of the following actions pursuant to the 2010 equity incentive plan as to some or all outstanding awards:

- arrange for all outstanding awards to be assumed, or equivalent awards shall be substituted, by the surviving or acquiring corporation (or the surviving or acquiring corporation's parent company);
- arrange for the assignment of any reacquisition or repurchase rights to the surviving corporation or acquiring corporation (or the surviving or acquiring corporation's parent company);

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- accelerate the vesting of any outstanding award to a date on or prior to the effective time of such merger or other reorganization event;
- arrange for the lapse of any of our reacquisition or repurchase rights;
- cancel or arrange for the cancellation of the award, to the extent not vested or not exercised prior to the effective time of such merger or other reorganization event; and/or
- make a payment, in such form as may be determined by our board of directors, equal to the excess, if any, of (A) the value of the property the holder of the award would have received upon the exercise of the award, over (B) any exercise price payable by such holder in connection with such exercise.

Our board of directors does not need to take the same action with respect to all awards and may take different actions with respect to portions of the same award.

At any time, our board of directors may, in its sole discretion, provide that any award under the 2010 equity incentive plan will become immediately exercisable in full or in part, free of some or all restrictions or conditions, or otherwise realizable in full or in part.

As of September 30, 2011, there were options to purchase an aggregate of 1,418,000 shares of common stock outstanding under the 2010 equity incentive plan at a weighted-average exercise price of \$0.21 per share and no shares of common stock issued upon the exercise of options granted under the 2010 equity incentive plan. If the 2012 stock incentive plan is approved by our stockholders, we will grant no further stock options or other awards under the 2010 equity incentive plan. However, any shares of common stock reserved for issuance under the 2010 equity incentive plan that remain available for issuance and any shares of common stock subject to awards under the 2010 equity incentive plan that expire, terminate or are otherwise surrendered, cancelled, forfeited or repurchased by us at the original issuance price pursuant to a contractual repurchase right will be available for issuance under the 2012 stock incentive plan up to a specified number of shares.

401(K) RETIREMENT PLAN

We maintain a defined contribution employee retirement plan for our employees. Our 401(k) plan is intended to qualify as a tax-qualified plan under Section 401 of the Internal Revenue Code so that contributions to our 401(k) plan, and income earned on such contributions, are not taxable to participants until withdrawn or distributed from the 401(k) plan. Our 401(k) plan provides that each participant may contribute up to 100% of his or her pre-tax compensation, up to a statutory limit, which is \$17,000 for 2012. Participants who are at least 50 years old can also make "catch-up" contributions, which in 2012 may be up to an additional \$5,500 above the statutory limit. Under our 401(k) plan, each employee is fully vested in his or her deferred salary contributions. Employee contributions are held and invested by the plan's trustee. Our 401(k) plan also permits us to make discretionary contributions and matching contributions, subject to established limits and a vesting schedule. Beginning in July 2011, we made an employer matching contribution equal to (1) 100% of employee deferral contributions up to a deferral rate of 3% of compensation plus (2) 50% of employee deferral contributions up to an deferral rate of an additional 2% of compensation.

LIMITATION OF LIABILITY AND INDEMNIFICATION

Our certificate of incorporation, which will become effective upon the closing of this offering, limits the personal liability of directors for breach of fiduciary duty to the maximum extent permitted by the Delaware General Corporation Law and provides that no director will have personal liability to us or

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to our stockholders for monetary damages for breach of fiduciary duty or other duty as a director. However, these provisions do not eliminate or limit the liability of any of our directors:

- for any breach of the director's duty of loyalty to us or our stockholders;
- for acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law;
- for voting for or assenting to unlawful payments of dividends, stock repurchases or other distributions; or
- for any transaction from which the director derived an improper personal benefit.

Any amendment to or repeal of these provisions will not eliminate or reduce the effect of these provisions in respect of any act, omission or claim that occurred or arose prior to such amendment or repeal. If the Delaware General Corporation Law is amended to provide for further limitations on the personal liability of directors of corporations, then the personal liability of our directors will be further limited to the greatest extent permitted by the Delaware General Corporation Law.

In addition, our certificate of incorporation, which will become effective upon the closing of this offering, provides that we must indemnify our directors and officers and we must advance expenses, including attorneys' fees, to our directors and officers in connection with legal proceedings, subject to very limited exceptions.

We maintain a general liability insurance policy that covers certain liabilities of our directors and officers arising out of claims based on acts or omissions in their capacities as directors or officers. In addition, we have entered into indemnification agreements with our directors. These indemnification agreements may require us, among other things, to indemnify each such director for some expenses, including attorneys' fees, judgments, fines and settlement amounts incurred by him in any action or proceeding arising out of his service as one of our directors.

Certain of our non-employee directors may, through their relationships with their employers, be insured and/or indemnified against certain liabilities incurred in their capacity as members of our board of directors.

RULE 10B5-1 SALES PLANS

Our directors and executive officers may adopt written plans, known as Rule 10b5-1 plans, in which they will contract with a broker to buy or sell shares of our common stock on a periodic basis. Under a Rule 10b5-1 plan, a broker executes trades pursuant to parameters established by the director or officer when entering into the plan, without further direction from the director or officer. The director or officer may amend or terminate the plan in some circumstances. Our directors and executive officers may also buy or sell additional shares outside of a Rule 10b5-1 plan when they are not in possession of material, nonpublic information.

DIRECTOR COMPENSATION

During 2011, we did not pay cash compensation to any director for his service as a director, except Henri Termeer. Mr. Termeer receives an annual retainer fee of \$25,000 for his service on our board of directors. We have historically reimbursed our non-employee directors for reasonable travel and other expenses incurred in connection with attending board of director and committee meetings.

Executive compensation

As discussed in the "Executive compensation" section of this prospectus, our chief executive officer, Christoph Westphal, M.D., Ph.D., who is also chairman of our board of directors, does not receive, and has not historically received, any compensation in connection with his service.

During 2011, we did not grant equity awards as compensation to any of our directors, except Henri Termeer. In June 2011, in recognition of the commencement of his service on our board of directors, we granted Mr. Termeer an option to purchase 125,000 shares of our common stock. This option vests with respect to 25% of the shares on the first anniversary of the grant date and with respect to the remaining shares in approximately equal quarterly installments through the fourth anniversary of the grant date. The exercise price of this option is \$0.08 per share, the fair value of our common stock on the date of grant as determined by our board of directors.

Effective upon the closing of this offering, our non-employee directors will be compensated as follows:

In addition, we will continue to reimburse our non-employee directors for reasonable travel and other expenses incurred in connection with attending board of director and committee meetings.

Transactions with related persons

Since our incorporation in August 2010, we have engaged in the following transactions with our directors, executive officers, holders of more than 5% of our voting securities, and affiliates or immediately family members of our directors, executive officers and holders of more than 5% of our voting securities, and our co-founders. We believe that all of these transactions were on terms as favorable as could have been obtained from unrelated third parties.

SERIES C PREFERRED STOCK FINANCING

In November 2011, we issued and sold an aggregate of 8,934,493 shares of our series C preferred stock at a price per share of \$2.25 for an aggregate purchase price of \$20.1 million. The following table sets forth the number of shares of our series C preferred stock that we issued to our 5% stockholders and their affiliates.

Name⁽¹⁾	Shares of series C preferred stock
Advanced Technology Ventures VIII, L.P.	100,000
Entities affiliated with Bessemer Venture Partners ⁽²⁾	133,333 ⁽³⁾
CHP III, L.P. ⁽⁴⁾	444,444
Eastern Capital Limited	4,000,000
Longwood Founders Fund, LP ⁽⁵⁾	444,444
MPM Bioventures V, LP ⁽⁶⁾	266,666

(1) See "Principal stockholders" for more information about shares held by these entities.

(2) Stephen Kraus, a member of our board of directors, is employed by Bessemer Venture Partners and has no voting or dispositive power with respect to the shares held by entities affiliated with Bessemer Venture Partners.

(3) Consists of (a) 18,667 shares purchased by Bessemer Venture Partners VII Institutional L.P., (b) 42,667 shares purchased by Bessemer Venture Partners VII L.P. and (c) 71,999 shares purchased by BVP VII Special Opportunity Fund L.P.

(4) John K. Clarke, a member of our board of directors, is a managing member of CHP III Management, LLC, the general partner of CHP III, L.P.

(5) Christoph Westphal, M.D., Ph.D. and Richard Aldrich, members of our board of directors, are partners of Longwood Founders Fund, LP.

(6) Ansbert Gadick, M.D., a member of our board of directors, is the managing director of MPM Capital and a member of MPM Bioventures V LLC, the general partner of MPM Bioventures V GP, LLC, which is the general partner of MPM Bioventures V, LP.

Transactions with related persons**SERIES B PREFERRED STOCK FINANCING**

In July 2011, we issued and sold an aggregate of 16,025,000 shares of our series B preferred stock at a price per share of \$2.00 for an aggregate purchase price of \$32,050,000. The following table sets forth the number of shares of our series B preferred stock that we issued to our 5% stockholders and their affiliates.

Name⁽¹⁾	Shares of series B preferred stock
Advanced Technology Ventures VIII, L.P.	2,500,000
Entities affiliated with Bessemer Venture Partners ⁽²⁾	2,500,000 ⁽³⁾
CHP III, L.P. ⁽⁴⁾	2,500,000
Longwood Founders Fund, LP ⁽⁵⁾	3,500,000
MPM Bioventures V, LP ⁽⁶⁾	2,500,000

(1) See "Principal stockholders" for more information about shares held by these entities.

(2) Stephen Kraus, a member of our board of directors, is employed by Bessemer Venture Partners and has no voting or dispositive power with respect to the shares held by entities affiliated with Bessemer Venture Partners.

(3) Consists of (a) 350,000 shares purchased by Bessemer Venture Partners VII Institutional L.P., (b) 800,000 shares purchased by Bessemer Venture Partners VII L.P. and (c) 1,350,000 shares purchased by BVP VII Special Opportunity Fund L.P.

(4) John K. Clarke, a member of our board of directors, is a managing member of CHP III Management, LLC, the general partner of CHP III, L.P.

(5) Christoph Westphal, M.D., Ph.D. and Richard Aldrich, members of our board of directors, are partners of Longwood Founders Fund, LP.

(6) Ansbert Gadicke, M.D., a member of our board of directors, is the managing director of MPM Capital and a member of MPM Bioventures V LLC, the general partner of MPM Bioventures V GP, LLC, which is the general partner of MPM Bioventures V, LP.

SERIES A PREFERRED STOCK FINANCING

In November 2010 and April 2011, we issued and sold an aggregate of 16,000,000 shares of our series A preferred stock at a price per share of \$1.00 for an aggregate purchase price of \$16,000,000. The following table sets forth the number of shares of our series A preferred stock that we issued to our 5% stockholders and their affiliates.

Name⁽¹⁾	Shares of series A preferred stock
Entities affiliated with Bessemer Venture Partners ⁽²⁾	4,000,000 ⁽³⁾
CHP III, L.P. ⁽⁴⁾	4,000,000
Longwood Founders Fund, LP ⁽⁵⁾	4,000,000
MPM Bioventures V, LP ⁽⁶⁾	4,000,000

(1) See "Principal stockholders" for more information about shares held by these entities.

(2) Stephen Kraus, a member of our board of directors, is employed by Bessemer Venture Partners and has no voting or dispositive power with respect to the shares held by entities affiliated with Bessemer Venture Partners.

(3) Consists of (a) 560,000 shares purchased by Bessemer Venture Partners VII Institutional L.P., (b) 1,280,000 shares purchased by Bessemer Venture Partners VII L.P. and (c) 2,160,000 shares purchased by BVP VII Special Opportunity Fund L.P.

(4) John K. Clarke, a member of our board of directors, is a managing member of CHP III Management, LLC, the general partner of CHP III, L.P.

(5) Christoph Westphal, M.D., Ph.D. and Richard Aldrich, members of our board of directors, are partners of Longwood Founders Fund, LP.

(6) Ansbert Gadicke, M.D., a member of our board of directors, is the managing director of MPM Capital and a member of MPM Bioventures V LLC, the general partner of MPM Bioventures V GP, LLC, which is the general partner of MPM Bioventures V, LP.

Transactions with related persons**RESTRICTED STOCK GRANTS TO CO-FOUNDERS**

In August 2010, in connection with our formation, we issued and sold an aggregate of 10,000,000 shares of our common stock at a price per share of \$0.0001 for an aggregate purchase price of \$1,000 to our co-founders. These shares are subject to repurchase by us pursuant to restricted stock agreements with each of our co-founders. These shares vest with respect to 25% of the shares on the grant date and with respect to the remaining shares in approximately equal quarterly installments through the fourth anniversary of the grant date. The following table sets forth the number of shares of common stock that we issued to our co-founders.

Name	Shares of common stock
Richard Aldrich ⁽¹⁾	1,900,000 ⁽²⁾
Michelle Dipp	600,000
Piyush Gupta, Ph.D. ⁽¹⁾	1,550,000 ⁽³⁾
Eric Lander, Ph.D.	1,250,000
Satish Jindal	1,250,000 ⁽⁴⁾
Robert Weinberg, Ph.D.	1,250,000
Christoph Westphal, M.D., Ph.D. ⁽¹⁾	2,200,000 ⁽⁵⁾

(1) Richard Aldrich and Christoph Westphal, M.D., Ph.D. are members of our board of directors. Piyush Gupta, Ph.D. is a former member of our board of directors.

(2) 475,000 of these shares were subsequently transferred to the Richard H. Aldrich Irrevocable Trust of 2011.

(3) 300,000 of these shares were issued to Dr. Gupta in connection with his role as a former member of our board of directors.

(4) In connection with the transition of Dr. Jindal from our President and Chief Operating Officer to our non-executive employee in February 2011, we repurchased 582,681 shares from him. Accordingly, Dr. Jindal owns 667,319 shares of our common stock as of September 30, 2011.

(5) 440,000 of these shares were subsequently transferred to The Foundation Irrevocable Trust of 2010.

SCIENTIFIC ADVISORY BOARD AGREEMENTS WITH CO-FOUNDERS

Three of our co-founders, Robert Weinberg, Ph.D., Eric Lander, Ph.D., and Piyush Gupta, Ph.D., are also members of our scientific advisory board and receive compensation for their participation pursuant to our scientific advisory board agreements with them. The following table sets forth the amount of cash compensation paid to each of these co-founders for their membership on our scientific advisory board since our formation.

Name	Amount
Piyush Gupta, Ph.D. ⁽¹⁾	\$ 100,000
Eric Lander, Ph.D.	\$ 75,000
Robert Weinberg, Ph.D.	\$ 75,000

(1) Piyush Gupta, Ph.D. is a former member of our board of directors.

AGREEMENTS WITH ENTITIES AFFILIATED WITH CO-FOUNDERS

From our formation in August 2010 through May 2011, we rented office space from Longwood Founders Fund, LP, an entity affiliated with three of our co-founders, Richard Aldrich, Michelle Dipp and Christoph Westphal, M.D., Ph.D. We paid Longwood Founders Fund, LP an aggregate of \$46,000 for our office space.

Transactions with related persons

In October 2010, we entered into agreements regarding the licensing of intellectual property with the Whitehead Institute, an entity affiliated with two of our co-founders, Robert Weinberg, Ph.D. and Piyush Gupta, Ph.D., and the Broad Institute, an entity affiliated with one of our co-founders, Eric Lander, Ph.D. See "Business—Licenses" for additional information regarding these agreements. Pursuant to one of the agreements, we issued 583,333 shares of our common stock to the Whitehead Institute and entities and individuals affiliated with the Whitehead Institute, including three of our co-founders. The following table sets forth the number of shares of common stock that we issued to our co-founders in connection with our agreement with the Whitehead Institute.

Name	Shares of common stock
Piyush Gupta, Ph.D. ⁽¹⁾	27,609
Eric Lander, Ph.D.	22,088
Robert Weinberg, Ph.D.	22,088

(1) Piyush Gupta, Ph.D. is a former member of our board of directors.

REGISTRATION RIGHTS

We are a party to an investor rights agreement with certain holders of our common stock and holders of our series A preferred stock, series B preferred stock and series C preferred stock, including some of our directors, executive officers and 5% stockholders and their affiliates and entities affiliated with our directors. The investor rights agreement provides these holders the right, following the completion of this offering, to demand that we file a registration statement or request that their shares be covered by a registration statement that we are otherwise filing. See "Description of capital stock—Registration rights" for additional information regarding these registration rights.

INDEMNIFICATION AGREEMENTS

Our certificate of incorporation in effect upon the closing of this offering provides that we will indemnify our directors and officers to the fullest extent permitted by Delaware law. In addition, we have entered into indemnification agreements with our directors. See "Executive compensation—Limitation of liability and indemnification" for additional information regarding these agreements.

POLICIES AND PROCEDURES FOR RELATED PERSON TRANSACTIONS

Our board of directors has adopted written policies and procedures for the review of any transaction, arrangement or relationship in which Verastem is a participant, the amount involved exceeds \$120,000 and one of our executive officers, directors, director nominees or 5% stockholders, or their immediate family members, each of whom we refer to as a "related person," has a direct or indirect material interest.

If a related person proposes to enter into such a transaction, arrangement or relationship, which we refer to as a "related person transaction," the related person must report the proposed related person transaction to our chief operating officer. The policy calls for the proposed related person transaction to be reviewed and, if deemed appropriate, approved by our audit committee. Whenever practicable, the reporting, review and approval will occur prior to entry into the transaction. If advance review and approval is not practicable, the committee will review, and, in its discretion, may ratify the related person transaction. The policy also permits the chairman of the committee to review and, if deemed appropriate, approve proposed related person transactions that arise between committee meetings,

Transactions with related persons

subject to ratification by the committee at its next meeting. Any related person transactions that are ongoing in nature will be reviewed annually.

A related person transaction reviewed under the policy will be considered approved or ratified if it is authorized by the committee after full disclosure of the related person's interest in the transaction. As appropriate for the circumstances, the committee will review and consider:

- the related person's interest in the related person transaction;
- the approximate dollar value of the amount involved in the related person transaction;
- the approximate dollar value of the amount of the related person's interest in the transaction without regard to the amount of any profit or loss;
- whether the transaction was undertaken in the ordinary course of our business;
- whether the terms of the transaction are no less favorable to us than terms that could have been reached with an unrelated third party;
- the purpose of, and the potential benefits to us of, the transaction; and
- any other information regarding the related person transaction or the related person in the context of the proposed transaction that would be material to investors in light of the circumstances of the particular transaction.

The committee may approve or ratify the transaction only if the committee determines that, under all of the circumstances, the transaction is in Verastem's best interests. The committee may impose any conditions on the related person transaction that it deems appropriate.

In addition to the transactions that are excluded by the instructions to the SEC's related person transaction disclosure rule, our board of directors has determined that the following transactions do not create a material direct or indirect interest on behalf of related persons and, therefore, are not related person transactions for purposes of this policy:

- interests arising solely from the related person's position as an executive officer of another entity (whether or not the person is also a director of such entity) that is a participant in the transaction, where (a) the related person and all other related persons own in the aggregate less than a 10% equity interest in such entity, (b) the related person and his or her immediate family members are not involved in the negotiation of the terms of the transaction and do not receive any special benefits as a result of the transaction and (c) the amount involved in the transaction is less than the greater of \$200,000 or 5% of the annual gross revenues of the company receiving payment under the transaction; and
- a transaction that is specifically contemplated by provisions of our charter or bylaws.

The policy provides that transactions involving compensation of executive officers shall be reviewed and approved by the compensation committee in the manner specified in its charter.

We did not have a written policy regarding the review and approval of related person transactions prior to this offering. Nevertheless, with respect to such transactions, it was our policy for our board of directors to consider the nature of and business reason for such transactions, how the terms of such transactions compared to those which might be obtained from unaffiliated third parties and whether such transactions were otherwise fair to and in the best interests of, or not contrary to, our best interests. In addition, all related person transactions required prior approval, or later ratification, by our board of directors.

Principal stockholders

The following table sets forth information with respect to the beneficial ownership of our common stock as of September 30, 2011 by:

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

The column entitled "Percentage of shares beneficially owned—Before offering" is based on a total of 51,436,145 shares of our common stock outstanding as of September 30, 2011, updated to reflect our issuance and sale of an aggregate of 8,934,493 shares of our series C preferred stock in November 2011 and assuming the conversion of all outstanding shares of our preferred stock into an aggregate of 40,959,493 shares of our common stock, including shares of our series C preferred stock that we issued and sold in November 2011, upon the closing of this offering.

The column entitled "Percentage of shares beneficially owned—After offering" is based on _____ shares of our common stock to be outstanding after this offering, including the _____ shares of our common stock that we are selling in this offering, but not including any additional shares issuable upon exercise of outstanding options.

Beneficial ownership is determined in accordance with the rules and regulations of the SEC and includes voting or investment power with respect to our common stock. Shares of our common stock subject to options that are currently exercisable or exercisable within 60 days of September 30, 2011 are considered outstanding and beneficially owned by the person holding the options for the purpose of calculating the percentage ownership of that person but not for the purpose of calculating the percentage ownership of any other person. Except as otherwise noted, we believe the persons and entities in this table have sole voting and investing power with respect to all of the shares of our common stock beneficially owned by them, subject to community property laws, where applicable. Except as otherwise set forth below, the address of the beneficial owner is c/o Verastem, Inc., 215 First Street, Suite 440, Cambridge, Massachusetts 02142.

Principal stockholders

Name and address of beneficial owner	Number of shares beneficially owned	Percentage of shares beneficially owned	
		Before offering	After offering
5% stockholders:			
Advanced Technology Ventures VIII, L.P. ⁽¹⁾ 1000 Winter Street Waltham, MA 02451	2,600,000	5.1%	%
Entities affiliated with Bessemer Venture Partners ⁽²⁾ 196 Broadway, 2nd Floor Cambridge, MA 02139	6,633,333	12.9%	%
CHP III, L.P. ⁽³⁾ 230 Nassau Street Princeton, NJ 08542	6,944,444	13.5%	%
Eastern Capital Limited ⁽⁴⁾ c/o Foreshore Corporate Services Ltd. 4th Floor, Queensgate House 113 South Church Street George Town, Grand Cayman KY1-1104 Cayman Islands	4,000,000	7.8%	%
Longwood Founders Fund, LP ⁽⁵⁾ 800 Boylston Street, Suite 1555 Boston, MA 02199	7,944,444	15.5%	%
MPM Bioventures V, LP ⁽⁶⁾ c/o MPM Asset Management 200 Clarendon Street, 54th Floor Boston, MA 02116	6,766,666	13.2%	%
Directors and Executive Officers			
Christoph Westphal, M.D., Ph.D. ⁽⁷⁾	10,144,444	19.7%	%
Robert Forrester	448,000	*	%
Jonathan Pachter, Ph.D.	—	—	%
Satish Jindal, Ph.D.	667,319	1.3%	%
Paul Brannelly	—	—	%
Peter Elliot, Ph.D.	28,000	*	%
Richard Aldrich ⁽⁸⁾	9,844,444	19.1%	%
John K. Clarke ⁽⁹⁾	6,944,444	13.5%	%
Ansbert Gadicke, M.D. ⁽¹⁰⁾	6,766,666	13.2%	%
Stephen Kraus ⁽¹¹⁾	—	—	%
Henri Termeer	—	—	%
All executive officers and directors as a group (8 persons) ⁽¹²⁾	26,203,554	50.9%	%

* Represents beneficial ownership of less than one percent of our outstanding common stock.

(1) Consists of (a) 2,500,000 shares of common stock underlying shares of series B preferred stock, and (b) 100,000 shares of common stock underlying shares of series C preferred stock. No natural person holds voting or dispositive power for the shares of our common stock held by Advanced Technologies Ventures VIII, L.P. ("ATV VIII"). ATV Associates VIII, LLC ("ATV VIII LLC") is the general partner of ATV VIII and controls its investment and voting decisions. Decisions of ATV VIII LLC are made by a board of six managing directors (the "ATV Managing Directors"). The ATV Managing Directors

Principal stockholders

are Steve Baloff, Michael Carusi, Wes Raffel, Jean George, Bob Hower and William Wiberg. Each of the ATV Managing Directors disclaims beneficial ownership of the shares held by ATV VIII.

- (2) Consists of (a) 560,000 shares of common stock underlying shares of series A preferred stock held by Bessemer Venture Partners VII Institutional L.P. ("BVP Institutional"), (b) 1,280,000 shares of common stock underlying shares of series A preferred stock held by Bessemer Venture Partners VII L.P. ("BVP VII"), (c) 2,160,000 shares of common stock underlying shares of series A preferred stock held by BVP VII Special Opportunity Fund L.P. ("BVP Special Opportunity" and together with BVP Institutional and BVP VII, "Bessemer Venture Partner Entities"), (d) 350,000 shares of common stock underlying shares of series B preferred stock held by Bessemer Venture Partners VII Institutional L.P., (e) 800,000 shares of common stock underlying shares of series B preferred stock held by Bessemer Venture Partners VII L.P., (f) 1,350,000 shares of common stock underlying shares of series B preferred stock held by BVP VII Special Opportunity Fund L.P., (g) 18,667 shares of common stock underlying shares of series C preferred stock held by Bessemer Venture Partners VII Institutional L.P., (h) 42,667 shares of common stock underlying shares of series C preferred stock held by Bessemer Venture Partners VII L.P., and (i) 71,999 shares of common stock underlying shares of series C preferred stock held by BVP VII Special Opportunity Fund L.P. Deer VII & Co. L.P. ("Deer L.P.") is the general partner of the Bessemer Venture Partner Entities. Deer VII & Co. Ltd. is the general partner of Deer L.P. J. Edmund Colloton, Robin S. Chandra, David J. Cowan, Robert P. Goodman, Jeremy S. Levine and Robert M. Stavis are the directors of Deer VII & Co. Ltd. and share voting and dispositive power over the shares of stock held by the Bessemer Venture Partner Entities. Each of Mr. Colloton, Ms. Chandra, Mr. Cowan, Mr. Goodman, Mr. Levine and Mr. Stavis disclaims beneficial ownership of the shares identified in this footnote except as to his or her respective proportionate pecuniary interest in such shares.
- (3) Consists of (a) 4,000,000 shares of common stock underlying shares of series A preferred stock, (b) 2,500,000 shares of common stock underlying shares of series B preferred stock, and (c) 444,444 shares of common stock underlying shares of series C preferred stock. John K. Clarke, Brandon H. Hull, Charles G. Hadley and John J. Park are the managing members of CHP III Management, LLC, the General Partner of CHP III, L.P., and exercise shared voting, investment, and dispositive rights with respect to the shares of stock held by CHP III, L.P. Each of Messrs. Clarke, Hull, Hadley and Park disclaims beneficial ownership of the shares identified in this footnote except as to his respective proportionate pecuniary interest in such shares.
- (4) Consists of 4,000,000 shares of common stock underlying shares of series C preferred stock. Eastern Capital Limited is a direct wholly owned subsidiary of Portfolio Services Ltd., a Cayman Islands company. Kenneth Dart is the beneficial owner of all of the outstanding shares of Portfolio Services Ltd., which in turn owns all the outstanding shares of Eastern Capital Limited. Eastern Capital Limited and Mr. Dart have shared voting and dispositive power with respect to the shares held.
- (5) Consists of (a) 4,000,000 shares of common stock underlying shares of series A preferred stock, (b) 3,500,000 shares of common stock underlying shares of series B preferred stock and (c) 444,444 shares of common stock underlying shares of series C preferred stock. Longwood Founder GP, LLC (the "General Partner") is the general partner of Longwood Founders Fund, LP and exercises voting and investment power with respect to securities owned directly by Longwood Founders Fund, LP. Richard Aldrich, Michelle Dipp and Christoph Westphal are the managers of the General Partner and share voting and dispositive power with respect to the securities held by Longwood Founders Fund, LP. The General Partner disclaims beneficial ownership of the securities owned directly by Longwood Founders Fund, LP and this report shall not be deemed an admission that the General Partner is the beneficial owner of such securities, except to the extent of its pecuniary interest therein.
- (6) Consists of (a) 4,000,000 shares of common stock underlying shares of series A preferred stock, (b) 2,500,000 shares of common stock underlying shares of series B preferred stock and (c) 266,666 shares of common stock underlying shares of series C preferred stock. MPM Bioventures V GP, LLC ("MPM V GP") is the general partner of MPM Bioventures V, LP and MPM Bioventures V LLC ("MPM V LLC") is the managing member of MPM V GP. Luke Evinin, Todd Foley, Ansbert Gadicke, Vaughn Kalian, James Scopa, Steven St. Peter and John Vander Vort are the members of MPM V LLC and have shared power to vote, hold and dispose of the shares held by MPM Bioventures V, LP. Each disclaims beneficial ownership of the securities reported herein except to the extent of his respective pecuniary interest therein.
- (7) Consists of (a) 1,760,000 shares of common stock held by Dr. Westphal, (b) 440,000 shares of common stock held by The Foundation Irrevocable Trust of 2010 and (c) 7,944,444 shares held by Longwood Founders Fund, LP. The trustee of The Foundation Irrevocable Trust of 2010 is James Kittler and he exercises sole voting and investment power of the shares of record held by the trust. The ultimate general partner of Longwood Founders Fund, LP is Longwood Founder GP, LLC. Voting and investment power with respect to the shares held by Longwood Founders Fund, LP. are vested in Richard Aldrich, Michelle Dipp and Dr. Westphal, the managers of Longwood Founder GP, LLC.
- (8) Consists of (a) 1,425,000 shares of common stock held by Mr. Aldrich, (b) 475,000 shares of common stock held by Richard H. Aldrich Irrevocable Trust of 2011 and (c) 7,944,444 shares held by Longwood Founders Fund, LP. The trustee

Principal stockholders

of the Richard H. Aldrich Irrevocable Trust of 2011 is Nicole Aldrich and she exercises sole voting and investment power over the shares of record held by the trust. The ultimate general partner of Longwood Founders Fund, LP is Longwood Founder GP, LLC. Voting and investment power with respect to the shares held by Longwood Founders Fund, LP, are vested in Mr. Aldrich, Michelle Dipp and Christoph Westphal, the managers of Longwood Founder GP, LLC.

- (9) *Consists of 6,944,444 shares held by CHP III, L.P. John K. Clarke, Brandon H. Hull, Charles G. Hadley and John J. Park are the managing members of CHP III Management, LLC, the General Partner of CHP III, L.P., and exercise shared voting, investment, and dispositive rights with respect to the shares of stock held by CHP III, L.P. Each of Messrs. Clarke, Hull, Hadley and Park disclaims beneficial ownership of the shares identified in this footnote except as to his respective proportionate pecuniary interest in such shares.*
- (10) *Consists of 6,766,666 shares held by MPM Bioventures V, LP. MPM V GP is the general partner of MPM Bioventures V, LP and MPM V LLC is the managing member of MPM V GP. Luke Eynin, Todd Foley, Ansbert Gadicke, Vaughn Kalian, James Scopa, Steven St. Peter and John Vander Vort are the members of MPM V LLC and have shared power to vote, hold and dispose of the shares held by MPM Bioventures V, LP. Each disclaims beneficial ownership of the securities reported herein except to the extent of his respective pecuniary interest therein.*
- (11) *Mr. Kraus serves as an employee of Bessemer Venture Partners, the management company affiliate of the Bessemer Venture Partner Entities that hold an aggregate of 6,333,333 shares of our common stock underlying shares of preferred stock as described above. Mr. Kraus has no voting or dispositive power with respect to the shares held by the Bessemer Venture Partner Entities and disclaims beneficial ownership of such shares except to the extent of his pecuniary interest therein.*
- (12) *Consists of an aggregate of 26,203,554 shares of common stock.*

Description of capital stock

GENERAL

The following description of our capital stock and provisions of our certificate of incorporation and bylaws are summaries and are qualified by reference to the certificate of incorporation and the bylaws that will be in effect upon the closing of this offering. We have filed copies of these documents with the SEC as exhibits to our registration statement of which this prospectus forms a part. The description of the capital stock reflects changes to our capital structure that will occur upon the closing of this offering.

Upon the closing of this offering, our authorized capital stock will consist of _____ shares of our common stock, par value \$0.0001 per share, and _____ shares of our preferred stock, par value \$0.0001 per share, all of which preferred stock will be undesignated.

As of September 30, 2011, we had issued and outstanding:

- 10,476,652 shares of our common stock outstanding held by 11 stockholders of record;
- 16,000,000 shares of our series A preferred stock that will automatically convert into 16,000,000 shares of our common stock upon the closing of this offering;
- 16,025,000 shares of our series B preferred stock that will automatically convert into 16,025,000 shares of our common stock upon the closing of this offering; and
- 8,934,493 shares of our series C preferred stock that will automatically convert into 8,934,493 shares of our common stock upon the closing of this offering.

As of September 30, 2011, we also had outstanding options to purchase 1,418,000 shares of our common stock at a weighted-average exercise price of \$0.21 per share.

COMMON STOCK

Holders of our common stock are entitled to one vote for each share held on all matters submitted to a vote of stockholders and do not have cumulative voting rights. An election of directors by our stockholders shall be determined by a plurality of the votes cast by the stockholders entitled to vote on the election. Holders of common stock are entitled to receive proportionately any dividends as may be declared by our board of directors, subject to any preferential dividend rights of outstanding preferred stock.

In the event of our liquidation or dissolution, the holders of common stock are entitled to receive proportionately all assets available for distribution to stockholders after the payment of all debts and other liabilities and subject to the prior rights of any outstanding preferred stock. Holders of common stock have no preemptive, subscription, redemption or conversion rights. The rights, preferences and privileges of holders of common stock are subject to and may be adversely affected by the rights of the holders of shares of any series of preferred stock that we may designate and issue in the future.

PREFERRED STOCK

Under the terms of our certificate of incorporation, our board of directors is authorized to issue shares of preferred stock in one or more series without stockholder approval. Our board of directors has the discretion to determine the rights, preferences, privileges and restrictions, including voting rights, dividend rights, conversion rights, redemption privileges and liquidation preferences, of each series of preferred stock.

Description of capital stock

The purpose of authorizing our board of directors to issue preferred stock and determine its rights and preferences is to eliminate delays associated with a stockholder vote on specific issuances. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions, future financings and other corporate purposes, could have the effect of making it more difficult for a third party to acquire, or could discourage a third party from seeking to acquire, a majority of our outstanding voting stock. Upon the closing of this offering, there will be no shares of preferred stock outstanding, and we have no present plans to issue any shares of preferred stock.

DELAWARE ANTI-TAKEOVER LAW AND CERTAIN CHARTER AND BYLAWS PROVISIONS

Delaware law

We are subject to Section 203 of the Delaware General Corporation Law. Subject to certain exceptions, Section 203 prevents a publicly-traded Delaware corporation from engaging in a "business combination" with any "interested stockholder" for three years following the date that the person became an interested stockholder, unless either the interested stockholder attained such status with the approval of our board of directors, the business combination is approved by our board of directors and stockholders in a prescribed manner or the interested stockholder acquired at least 85% of our outstanding voting stock in the transaction in which it became an interested stockholder. A "business combination" includes, among other things, a merger or consolidation involving us and the "interested stockholder" and the sale of more than 10% of our assets. In general, an "interested stockholder" is any entity or person beneficially owning 15% or more of our outstanding voting stock and any entity or person affiliated with or controlling or controlled by such entity or person. The restrictions contained in Section 203 are not applicable to any of our existing stockholders that will own 15% or more of our outstanding voting stock upon the closing of this offering.

Staggered board

Our certificate of incorporation and our bylaws divide our board of directors into three classes with staggered three-year terms. In addition, our certificate of incorporation and our bylaws provide that directors may be removed only for cause and only by the affirmative vote of the holders of 75% of our shares of capital stock present in person or by proxy and entitled to vote. Under our certificate of incorporation and bylaws, any vacancy on our board of directors, including a vacancy resulting from an enlargement of our board of directors, may be filled only by vote of a majority of our directors then in office. Furthermore, our certificate of incorporation provides that the authorized number of directors may be changed only by the resolution of our board of directors. The classification of our board of directors and the limitations on the ability of our stockholders to remove directors, change the authorized number of directors and fill vacancies could make it more difficult for a third party to acquire, or discourage a third party from seeking to acquire, control of our company.

Stockholder action; special meeting of stockholders; advance notice requirements for stockholder proposals and director nominations

Our certificate of incorporation and our bylaws provide that any action required or permitted to be taken by our stockholders at an annual meeting or special meeting of stockholders may only be taken if it is properly brought before such meeting and may not be taken by written action in lieu of a meeting. Our certificate of incorporation and our bylaws also provide that, except as otherwise required by law, special meetings of the stockholders can only be called by our chairman of the board, our president or chief executive officer or our board of directors. In addition, our bylaws establish an advance notice procedure for stockholder proposals to be brought before an annual meeting of stockholders, including proposed nominations of candidates for election to our board of directors.

Description of capital stock

Stockholders at an annual meeting may only consider proposals or nominations specified in the notice of meeting or brought before the meeting by or at the direction of our board of directors, or by a stockholder of record on the record date for the meeting who is entitled to vote at the meeting and who has delivered timely written notice in proper form to our secretary of the stockholder's intention to bring such business before the meeting. These provisions could have the effect of delaying until the next stockholder meeting stockholder actions that are favored by the holders of a majority of our outstanding voting securities. These provisions also could discourage a third party from making a tender offer for our common stock, because even if it acquired a majority of our outstanding voting stock, it would be able to take action as a stockholder, such as electing new directors or approving a merger, only at a duly called stockholders meeting and not by written consent.

Super-majority voting

The Delaware General Corporation Law provides generally that the affirmative vote of a majority of the shares entitled to vote on any matter is required to amend a corporation's certificate of incorporation or bylaws, unless a corporation's certificate of incorporation or bylaws, as the case may be, requires a greater percentage. Our bylaws may be amended or repealed by a majority vote of our board of directors or the affirmative vote of the holders of at least 75% of the votes that all our stockholders would be entitled to cast in any annual election of directors. In addition, the affirmative vote of the holders of at least 75% of the votes that all our stockholders would be entitled to cast in any election of directors is required to amend or repeal or to adopt any provisions inconsistent with any of the provisions of our certificate of incorporation described above.

Registration rights

We have entered into a second amended and restated investor rights agreement, dated November 1, 2011, which we refer to as the investor rights agreement, with certain holders of shares of our common stock, series A preferred stock, series B preferred stock and series C preferred stock. Upon the completion of this offering, holders of a total of 40,959,493 shares of our common stock as of September 30, 2011, including shares issuable upon conversion of our preferred stock, will have the right to require us to register these shares under the Securities Act of 1933, as amended, or Securities Act, and to participate in future registrations of securities by us, under the circumstances described below. The holders of an additional 9,865,319 shares of our common stock as of September 30, 2011 will have the right to participate in future registrations of securities by us, under the circumstances described below. After registration pursuant to these rights, these shares will become freely tradable without restriction under the the Securities Act. If not otherwise exercised, the rights described below will expire five years after the closing of this offering.

Demand registration rights

Beginning 180 days after the effective date of the registration statement of which this prospectus forms a part, subject to specified limitations set forth in the investor rights agreement, at any time, the holders of a majority of the then outstanding shares having rights under the investor rights agreement, which we refer to as registrable shares, may at any time demand in writing that we register all or a portion of the registrable shares under the Securities Act if the total amount of registrable shares registered have an aggregate offering price of at least \$5.00 million (based on the then current market price or fair value). We are not obligated to file a registration statement pursuant to this provision on more than two occasions, and we are not obligated to file a registration statement pursuant to this provision within 180 days of the effective date of any other registration statement that we may file.

Description of capital stock

Form S-3 registration rights

In addition, at any time after we become eligible to file a registration statement on Form S-3, subject to specified limitations set forth in the investor rights agreement, the holders of at least 30% of the registrable shares may demand in writing that we register on Form S-3 all or a portion of the registrable shares so long as the total amount of registrable shares being registered have an aggregate offering price of at least \$1.00 million (based on the then current market price). We are not obligated to file a Form S-3 pursuant to this provision on more than two occasions in any 12-month period.

Incidental registration rights

If, at any time after the closing of this offering, we propose to file a registration statement under the Securities Act, other than pursuant to the demand registration rights described above, the holders of registrable shares will be entitled to notice of the registration and, subject to specified exceptions, have the right to require us to register all or a portion of the registrable shares then held by them.

In the event that any registration in which the holders of registrable shares participate pursuant to our investor rights agreement is an underwritten public offering, we agree to enter into an underwriting agreement containing customary representation and warranties and covenants, including without limitation customary provisions with respect to indemnification of the underwriters of such offering.

In the event that any registration in which the holders of registrable shares participate pursuant to our investor rights agreement is an underwritten public offering, we will use our best efforts to include the requested registrable shares to be included, but may be limited by market conditions.

Expenses

Pursuant to the investor rights agreement, we are required to pay all registration expenses, including registration and filing fees, exchange listing fees, printing expenses and accounting fees and the fees and expenses of one counsel to represent the selling stockholders, other than any underwriting discounts and commissions, related to any demand or incidental registration. The registration rights agreement contains customary cross-indemnification provisions, pursuant to which we are obligated to indemnify the selling stockholders in the event of material misstatements or omissions in the registration statement attributable to us, and they are obligated to indemnify us for material misstatements or omissions in the registration statement attributable to them.

TRANSFER AGENT AND REGISTRAR

The transfer agent and registrar for our common stock will be .

NASDAQ GLOBAL MARKET

We are applying to have our common stock listed on The NASDAQ Global Market under the symbol "VSTM."

Shares eligible for future sale

Prior to this offering, there has been no public market for our common stock, and a liquid trading market for our common stock may not develop or be sustained after this offering. Future sales of substantial amounts of our common stock in the public market, including shares issued upon exercise of outstanding options, or the anticipation of these sales, could adversely affect market prices prevailing from time to time and could impair our ability to raise capital through sales of equity securities.

Upon the closing of this offering, we will have outstanding an aggregate of _____ shares of our common stock, assuming the underwriters do not exercise their over-allotment option and no options outstanding as of September 30, 2011 are exercised.

Of the shares to be outstanding immediately after the closing of this offering, we expect that the _____ shares to be sold in this offering will be freely tradable without restriction under the Securities Act unless purchased by our "affiliates," as that term is defined in Rule 144 under the Securities Act. The remaining _____ shares of our common stock outstanding after this offering will be "restricted securities" under Rule 144, and we expect that substantially all of these restricted securities will be subject to either the 180-day or 360-day lock-up period under the lock-up agreements as described below. These restricted securities may be sold in the public market only if registered or pursuant to an exemption from registration, such as Rule 144 or Rule 701 under the Securities Act.

RULE 144

In general, under Rule 144, beginning 90 days after the date of this prospectus, any person who is not our affiliate and has held their shares for at least six months, including the holding period of any prior owner other than one of our affiliates, may sell shares without restriction, subject to the availability of current public information about us. In addition, under Rule 144, any person who is not our affiliate and has not been our affiliate at any time during the preceding three months and has held their shares for at least one year, including the holding period of any prior owner other than one of our affiliates, would be entitled to sell an unlimited number of shares immediately upon the closing of this offering without regard to whether current public information about us is available.

Beginning 90 days after the date of this prospectus, a person who is our affiliate or who was our affiliate at any time during the preceding three months and who has beneficially owned restricted securities for at least six months, including the holding period of any prior owner other than one of our affiliates, is entitled to sell a number of shares within any three-month period that does not exceed the greater of:

- 1% of the number of shares of our common stock then outstanding, which will equal approximately _____ shares immediately after this offering; and
- the average weekly trading volume of our common stock on The NASDAQ Global Market during the four calendar weeks preceding the filing of a notice of proposed sale of securities pursuant to Rule 144 with respect to the sale.

Sales under Rule 144 by our affiliates are also subject to manner of sale provisions and notice requirements and to the availability of current public information about us.

Upon expiration of the 180-day lock-up period described below, approximately _____ shares of our common stock will be eligible for sale under Rule 144, including shares eligible for resale immediately upon the closing of this offering as described above. We cannot estimate the number of shares of our common stock that our existing stockholders will elect to sell under Rule 144.

Shares eligible for future sale

RULE 701

In general, under Rule 701 of the Securities Act, any of our employees, consultants or advisors, other than our affiliates, who purchased shares from us in connection with a qualified compensatory stock plan or other written agreement is eligible to resell these shares 90 days after the date of this prospectus in reliance on Rule 144, but without compliance with the holding period requirements of Rule 144 and without regard to the volume of such sales or the availability of public information about us. Subject to the 180-day and 360-day lock-up periods described below, approximately _____ shares of our common stock will be eligible for sale in accordance with Rule 701.

LOCK-UP AGREEMENTS

We, each of our directors and executive officers and holders of substantially all of our outstanding shares of common stock have agreed that, without the prior written consent of UBS Securities LLC and Leerink Swann LLC on behalf of the underwriters, we and they will not, subject to limited exceptions, during the period ending 180 days after the date of this prospectus, in the case of us and holders of our common stock issued upon conversion of our preferred stock, or 360 days after the date of this prospectus, in the case of our directors, executive officers and other current holders of our common stock, subject to extension in specified circumstances:

- sell, offer to sell, contract or agree to sell, hypothecate, pledge, grant any option to purchase or otherwise dispose of or agree to dispose of, directly or indirectly, any shares of our common stock or any securities convertible into or exchangeable or exercisable for shares of our common stock, or publicly announce an intention to do the same;
- establish or increase a put equivalent position or liquidate or decrease a call equivalent position with respect to any shares of our common stock or any securities convertible into or exchangeable or exercisable for shares of our common stock, or publicly announce an intention to do the same;
- enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of our common stock or any securities convertible into or exchangeable or exercisable for shares of our common stock, whether such transaction is to be settled by delivery of shares of our common stock or such other securities, in cash or otherwise, or publicly announce an intention to do the same; or
- make any demand for or exercise any right with respect to the registration of any shares of our common stock or any securities convertible into or exchangeable or exercisable for shares of our common stock.

The lock-up restrictions, specified exceptions and the circumstances under which either the 180-day or 360-day lock-up period may be extended are described in more detail under "Underwriting."

REGISTRATION RIGHTS

Subject to the lock-up agreements described above, upon the closing of this offering, the holders of an aggregate of _____ shares of our common stock will have the right to require us to register these shares under the Securities Act under specified circumstances. After registration pursuant to these rights, these shares will become freely tradable without restriction under the Securities Act. See "Description of capital stock—Registration rights" for additional information regarding these registration rights.

Shares eligible for future sale

STOCK OPTIONS

As of September 30, 2011, we had outstanding options to purchase 1,418,000 shares of our common stock, of which options to purchase 2,500 shares were vested. Following this offering, we intend to file one or more registration statements on Form S-8 under the Securities Act to register all of the shares of our common stock subject to outstanding options and options and other awards issuable pursuant to our 2012 stock incentive plan and shares of our common stock subject to outstanding options issued pursuant to our 2010 equity incentive plan. See "Executive compensation—Stock option and other employee benefit plans" for additional information regarding these plans. Accordingly, shares of our common stock registered under the registration statements will be available for sale in the open market, subject to Rule 144 volume limitations applicable to affiliates, and subject to any vesting restrictions and lock-up agreements applicable to these shares.

Underwriting

We are offering the shares of our common stock described in this prospectus through the underwriters named below. UBS Securities LLC and Leerink Swann LLC are acting as joint book-running managers of this offering and the representatives of the underwriters. We have entered into an underwriting agreement with the representatives on behalf of the underwriters named below. Subject to the terms and conditions of the underwriting agreement, each of the underwriters has severally agreed to purchase the number of shares of common stock listed next to its name in the following table:

Underwriters	Number of shares
UBS Securities LLC	
Leerink Swann LLC	
Lazard Capital Markets LLC	
Oppenheimer & Co. Inc	
Rodman & Renshaw, LLC	

The underwriting agreement provides that the underwriters must buy all of the shares if they buy any of them. However, the underwriters are not required to take or pay for the shares covered by the underwriters' over-allotment option described below.

Our common stock is offered subject to a number of conditions, including:

- receipt and acceptance of our common stock by the underwriters, and
- the underwriters' right to reject orders in whole or in part.

In connection with this offering, certain of the underwriters or securities dealers may distribute prospectuses electronically.

OVER-ALLOTMENT OPTION

We have granted the underwriters an option to buy up to an aggregate of _____ additional shares of our common stock. The underwriters may exercise this option solely for the purpose of covering over-allotments, if any, made in connection with this offering. The underwriters have 30 days from the date of this prospectus to exercise this option. If the underwriters exercise this option, they will each purchase additional shares approximately in proportion to the amounts specified in the table above.

COMMISSIONS AND DISCOUNTS

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 public offering price. Sales of shares made outside the United States may be made by affiliates of the underwriters. If all the shares are not sold at the initial public offering price, the representatives may change the offering price and the other selling terms. Upon execution of the underwriting agreement, the underwriters will be obligated to purchase the shares at the prices and upon the terms stated therein.

Underwriting

The following table shows the per share and total underwriting discounts and commissions we will pay to the underwriters assuming both no exercise and full exercise of the underwriters' option to purchase additional shares of our common stock.

	No exercise	Full exercise
Per share	\$	\$
Total		

We estimate that the total expenses of this offering payable by us, not including the underwriting discounts and commissions, will be approximately \$.

NO SALES OF SIMILAR SECURITIES

We, each of our directors and executive officers and holders of substantially all of our common stock have entered into lock-up agreements with the underwriters. Under these agreements, subject to certain exceptions, we and each of these persons may not offer, sell, contract or agree to sell, hypothecate, pledge, grant any option to purchase or otherwise dispose of, directly or indirectly, any shares of common stock or any securities convertible into or exercisable or exchangeable for common stock, or publicly disclose the intention to do the same. These restrictions will be in effect for a period of 180 days after the date of this prospectus, in the case of holders of our common stock issued upon conversion of our preferred stock, or 360 days after the date of this prospectus, in the case of our directors, executive officers and other current holders of our common stock, subject in each case to extension in the circumstances described in the paragraph below. At any time and without public notice, UBS Securities LLC and Leerink Swann LLC, may, in their sole discretion, release some or all of the securities held by our executive officers, directors and the holders of all of our common stock from these lock-up agreements.

Notwithstanding the foregoing, if (1) during the last 15 calendar days plus three business days of the 180-day or 360-day restricted period, we issue an earnings release or material news or a material event relating to us occurs or (2) prior to the expiration of the 180-day or 360-day restricted period, we announce that we will release earnings results during the 16-day period beginning on the last day of the 180-day or 360-day period, the restrictions described above shall continue to apply until the date that is 15 calendar days plus three business days after the date of the issuance of the earnings release or the occurrence of the material news or material event.

INDEMNIFICATION

We agreed to indemnify the underwriters against certain liabilities, including certain liabilities under the Securities Act. If we are unable to provide this indemnification, we have agreed to contribute to payments the underwriters may be required to make in respect of those liabilities.

NASDAQ GLOBAL MARKET LISTING

We are applying to list our common stock on The NASDAQ Global Market under the symbol "VSTM."

PRICE STABILIZATION, SHORT POSITIONS

In connection with this offering, the underwriters may engage in activities that stabilize, maintain or otherwise affect the price of our common stock, including:

→ stabilizing transactions;

Underwriting

- > short sales;
- > purchases to cover positions created by short sales;
- > imposition of penalty bids; and
- > syndicate covering transactions.

Stabilizing transactions consist of bids or purchases made for the purpose of preventing or retarding a decline in the market price of our common stock while this offering is in progress. These transactions may also include making short sales of our common stock, which involve the sale by the underwriters of a greater number of shares of common stock than they are required to purchase in this offering, and purchasing shares of common stock on the open market to cover positions created by short sales. Short sales may be "covered short sales," which are short positions in an amount not greater than the underwriters' over-allotment option referred to above, or may be "naked short sales," which are short positions in excess of that amount.

The underwriters may close out any covered short position by either exercising their over-allotment option, in whole or in part, or by purchasing shares in the open market. In making this determination, 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 shares through the over-allotment option.

Naked short sales are short sales made in excess of the over-allotment option. The underwriters must close out any 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 the common stock in the open market that could adversely affect investors who purchased in this offering.

The underwriters also may 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 that underwriter in stabilizing or short covering transactions.

As a result of these activities, the price of our common stock may be higher than the price that otherwise might exist in the open market. If these activities are commenced, they may be discontinued by the underwriters at any time. The underwriters may carry out these transactions on The NASDAQ Global Market, in the over-the-counter market or otherwise.

DETERMINATION OF OFFERING PRICE

Prior to this offering, there was no public market for our common stock. The initial public offering price will be determined by negotiation by us and the representative of the underwriters. The principal factors to be considered in determining the initial public offering price include:

- > the information set forth in this prospectus and otherwise available to the representatives;
- > our history and prospects and the history of, and prospects for, the industry in which we compete;
- > our past and present financial performance and an assessment of our management;
- > our prospects for future earnings and the present state of our development;
- > the general condition of the securities markets at the time of this offering;

Underwriting

- the recent market prices of, and the demand for, publicly-traded common stock of generally comparable companies; and
- other factors deemed relevant by the underwriters and us.

AFFILIATIONS

Certain of the underwriters and their affiliates may in the future from time to time provide investment banking and other financing, trading, banking, research, transfer agent and trustee services to us or our subsidiaries, for which they may in the future receive customary fees and expenses.

Lazard Frères & Co. LLC referred this transaction to Lazard Capital Markets LLC and will receive a referral fee from Lazard Capital Markets LLC in connection therewith.

NOTICE TO INVESTORS

Notice to prospective investors in the European Economic Area

In relation to each member state of the European Economic Area (EEA) that has implemented the Prospectus Directive (each, a relevant member state), other than Germany, with effect from and including the date on which the Prospectus Directive is implemented in that relevant member state (the relevant implementation date), an offer of securities described in this prospectus may not be made to the public in that relevant member state other than:

- to any legal entity which is a qualified investor as defined in the Prospectus Directive;
- by the Managers to fewer than 100, or, if the Relevant Member State has implemented the relevant provisions of the 2010 PD Amending Directive, 150, natural or legal persons (other than qualified investors as defined in the Prospectus Directive), as permitted under the Prospectus Directive, subject to obtaining the prior consent of the Bookrunners for any such offer; or
- in any other circumstances falling within Article 3(2) of the Prospectus Directive.

provided that no such offer of securities shall require us or any underwriter to publish a prospectus pursuant to Article 3 of the Prospectus Directive.

For purposes of this provision, the expression an "offer of securities to the public" 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 securities to be offered so as to enable an investor to decide to purchase or subscribe for the securities, as the expression may be varied in that member state by any measure implementing the Prospectus Directive in that member state, and the expression "Prospectus Directive" means Directive 2003/71/EC (and amendments thereto, including the 2010 PD Amending Directive, to the extent implemented in the Relevant Member State), and includes any relevant implementing measure in the Relevant Member State, and includes any relevant implementing measure in each relevant member state. The expression 2010 PD Amending Directive means Directive 2010/73/EU.

We have not authorized and do not authorize the making of any offer of securities through any financial intermediary on its behalf, other than offers made by the underwriters with a view to the final placement of the securities as contemplated in this prospectus. Accordingly, no purchaser of the securities, other than the underwriters, is authorized to make any further offer of the securities on behalf of us or the underwriters.

The EEA selling restriction is in addition to any other selling restrictions set out in this prospectus.

Underwriting

Notice to prospective investors in Australia

This offering memorandum is not a formal disclosure document and has not been, nor will be, lodged with the Australian Securities and Investments Commission. It does not purport to contain all information that an investor or its professional advisers would expect to find in a prospectus or other disclosure document (as defined in the Corporations Act 2001 (Australia)) for the purposes of Part 6D.2 of the Corporations Act 2001 (Australia) or in a product disclosure statement for the purposes of Part 7.9 of the Corporations Act 2001 (Australia), in either case, in relation to the securities.

The securities are not being offered in Australia to "retail clients" as defined in sections 761G and 761GA of the Corporations Act 2001 (Australia). This offering is being made in Australia solely to "wholesale clients" for the purposes of section 761G of the Corporations Act 2001 (Australia) and, as such, no prospectus, product disclosure statement or other disclosure document in relation to the securities has been, or will be, prepared.

This offering memorandum does not constitute an offer in Australia other than to wholesale clients. By submitting an application for our securities, you represent and warrant to us that you are a wholesale client for the purposes of section 761G of the Corporations Act 2001 (Australia). If any recipient of this offering memorandum is not a wholesale client, no offer of, or invitation to apply for, our securities shall be deemed to be made to such recipient and no applications for our securities will be accepted from such recipient. Any offer to a recipient in Australia, and any agreement arising from acceptance of such offer, is personal and may only be accepted by the recipient. In addition, by applying for our securities you undertake to us that, for a period of 12 months from the date of issue of the securities, you will not transfer any interest in the securities to any person in Australia other than to a wholesale client.

Notice to prospective investors in Hong Kong

Our securities may not be offered or sold in Hong Kong, by means of this prospectus or any document other than (1) to "professional investors" within the meaning of the Securities and Futures Ordinance (Cap.571, Laws of Hong Kong) and any rules made thereunder, or (2) in circumstances which do not constitute an offer to the public within the meaning of the Companies Ordinance (Cap.32, Laws of Hong Kong), or (3) 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). No advertisement, invitation or document relating to our securities 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 securities laws of Hong Kong) other than with respect to the securities 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.

Notice to prospective investors in Japan

Our 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 our securities will not be offered or sold, 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

Underwriting

otherwise in compliance with, the Financial Instruments and Exchange Law and any other applicable laws, regulations and ministerial guidelines of Japan.

Notice to prospective investors in Singapore

This document has not been registered as a prospectus with the Monetary Authority of Singapore and in Singapore, the offer and sale of our securities is made pursuant to exemptions provided in sections 274 and 275 of the Securities and Futures Act, Chapter 289 of Singapore (SFA). Accordingly, this prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of our securities may not be circulated or distributed, nor may our securities 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 (1) to an institutional investor as defined in Section 4A of the SFA pursuant to Section 274 of the SFA, (2) to a relevant person as defined in section 275(2) of the SFA pursuant to Section 275(1) of the SFA, or any person pursuant to Section 275(1A) of the SFA, and in accordance with the conditions specified in Section 275 of the SFA or (3) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA, in each case subject to compliance with the conditions (if any) set forth in the SFA. Moreover, this document is not a prospectus as defined in the SFA. Accordingly, statutory liability under the SFA in relation to the content of prospectuses would not apply. Prospective investors in Singapore should consider carefully whether an investment in our securities is suitable for them.

Where our securities are subscribed or purchased under Section 275 of the SFA by a relevant person which is:

- by a corporation (which is not an accredited investor as defined in Section 4A of the SFA) 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
- for a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor,

shares of that corporation or the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferable for six months after that corporation or that trust has acquired the shares under Section 275 of the SFA, except:

- to an institutional investor (for corporations under Section 274 of the SFA) or to a relevant person defined in Section 275(2) of the SFA, or any person pursuant to an offer that is made on terms that such shares of that corporation or such rights and interest in that trust are acquired at a consideration of not less than S\$200,000 (or its equivalent in a foreign currency) for each transaction, whether such amount is to be paid for in cash or by exchange of securities or other assets, and further for corporations, in accordance with the conditions, specified in Section 275 of the SFA;
- where no consideration is given for the transfer; or
- where the transfer is by operation of law.

In addition, investors in Singapore should note that the securities acquired by them are subject to resale and transfer restrictions specified under Section 276 of the SFA, and they, therefore, should seek their own legal advice before effecting any resale or transfer of their securities.

Underwriting

Notice to prospective investors in Switzerland

The Prospectus does not constitute an issue prospectus pursuant to Article 652a or Article 1156 of the Swiss Code of Obligations (CO) and the shares will not be listed on the SIX Swiss Exchange. Therefore, the Prospectus may not comply with the disclosure standards of the CO and/or the listing rules (including any prospectus schemes) of the SIX Swiss Exchange. Accordingly, the shares may not be offered to the public in or from Switzerland, but only to a selected and limited circle of investors, which do not subscribe to the shares with a view to distribution.

Notice to prospective investors in United Kingdom

This prospectus is only being distributed to and is only directed at: (1) persons who are outside the United Kingdom; (2) investment professionals falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (the Order); or (3) high net worth companies, and other persons to whom it may lawfully be communicated, falling within Article 49(2)(a) to (d) of the Order (all such persons falling within (1)-(3) together being referred to as "relevant persons"). The shares are only available to, and any invitation, offer or agreement to subscribe, purchase or otherwise acquire such shares will be engaged in only with, relevant persons. Any person who is not a relevant person should not act or rely on this prospectus or any of its contents.

Legal matters

The validity of the shares of common stock offered hereby is being passed upon for us by Wilmer Cutler Pickering Hale and Dorr LLP. Ropes & Gray LLP is acting as counsel for the underwriters in connection with this offering.

Experts

Ernst & Young LLP, independent registered public accounting firm, has audited our financial statements as of December 31, 2010 and for the period from August 4, 2010 (inception) to December 31, 2010, as set forth in their report included in this prospectus. We have included our financial statements in this prospectus and elsewhere in this registration statement in reliance on Ernst & Young LLP's report, given on 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 the shares of common stock we are offering to sell. This prospectus, which constitutes part of the registration statement, does not include all of the information contained in the registration statement and the exhibits, schedules and amendments to the registration statement. For further information with respect to us and our common stock, we refer you to the registration statement and to the exhibits and schedules to the registration statement. Statements contained in this prospectus about the contents of any contract, agreement or other document are not necessarily complete, and, in each instance, we refer you to the copy of the contract, agreement or other document filed as an exhibit to the registration statement. Each of these statements is qualified in all respects by this reference.

You may read and copy the registration statement of which this prospectus is a part at the SEC's public reference room, which is located at 100 F Street, N.E., Room 1580, Washington, DC 20549. You can request copies of the registration statement by writing to the Securities and Exchange Commission and paying a fee for the copying cost. Please call the SEC at 1-800-SEC-0330 for more information about the operation of the SEC's public reference room. In addition, the SEC maintains an Internet website, which is located at <http://www.sec.gov>, that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC. You may access the registration statement of which this prospectus is a part at the SEC's Internet website. Upon completion of this offering, we will be subject to the information reporting requirements of the Securities Exchange Act of 1934, and we will file reports, proxy statements and other information with the SEC.

Verastem, Inc.
(A development stage company)

FINANCIAL STATEMENTS

Period from August 4, 2010 (inception) to December 31, 2010 and unaudited information for the nine months ended September 30, 2011 and the period from August 4, 2010 (inception) to September 30, 2011

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Verastem, Inc.
(A development stage company)

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders of
Verastem, Inc.

We have audited the accompanying balance sheet of Verastem, Inc. (a development stage company) (the Company) as of December 31, 2010, and the related statements of operations, redeemable convertible preferred stock and stockholders' deficit and cash flows for the period from August 4, 2010 (inception) to December 31, 2010. 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 audit.

We conducted our audit 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. We were not engaged to perform an audit of the Company's internal control over financial reporting. Our audit 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, and evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Verastem, Inc. as of December 31, 2010 and the results of its operations and its cash flows for the period from August 4, 2010 (inception) to December 31, 2010, in conformity with U.S. generally accounting principles.

Boston, Massachusetts
November 2, 2011

Verastem, Inc.
(A development stage company)

BALANCE SHEETS

	December 31, 2010	September 30, 2011	
		Actual (Unaudited)	Pro forma (Unaudited)
(In thousands except per share data)			
Assets			
Current assets:			
Cash and cash equivalents	\$ 3,584	\$ 41,421	\$ 41,421
Prepaid expenses and other current assets	12	6	6
Total current assets	3,596	41,427	41,427
Property and equipment, net	8	719	719
Other assets	—	132	132
Restricted cash	—	86	86
Total assets	\$ 3,604	\$ 42,364	\$ 42,364
Liabilities, redeemable convertible preferred stock and stockholders' (deficit) equity			
Current liabilities:			
Accounts payable	\$ 279	\$ 1,246	\$ 1,246
Accrued expenses	89	762	762
Total current liabilities	368	2,008	2,008
Deferred rent	—	81	81
Liability for shares subject to repurchase	—	36	36
Commitments and contingencies (<i>Note 8</i>)			
Series A redeemable convertible preferred stock, \$0.0001 par value; 16,000 shares authorized, 4,000 and 16,000 (unaudited) shares issued and outstanding (actual) at December 31, 2010 and September 30, 2011, respectively and no shares issued and outstanding pro forma (Liquidation preference of \$4,000 and \$16,000 (unaudited) as of December 31, 2010 and September 30, 2011, respectively)	3,923	15,935	—
Series B redeemable convertible preferred stock, \$0.0001 par value; 16,025 shares authorized, issued and outstanding (actual) at September 30, 2011 (unaudited) and no shares issued and outstanding pro forma (Liquidation preference of \$32,050 as of September 30, 2011 (unaudited))	—	31,943	—
Common stock, \$0.0001 par value; 30,000 and 45,000 shares authorized at December 31, 2010 and September 30, 2011 (actual and pro forma, unaudited), 3,552 shares issued and outstanding at December 31, 2010, 4,986 shares issued and outstanding at September 30, 2011 (actual, unaudited) and 37,011 shares issued and outstanding at September 30, 2011 (pro forma, unaudited)	1	1	4
Additional paid-in capital	96	822	48,697
Deficit accumulated during the development stage	(784)	(8,462)	(8,462)
Total stockholders' (deficit) equity	(687)	(7,639)	40,239
Total liabilities, redeemable convertible preferred stock and stockholders' (deficit) equity	\$ 3,604	\$ 42,364	\$ 42,364

See accompanying notes.

Verastem, Inc.
(A development stage company)

STATEMENTS OF OPERATIONS

	Period from August 4, 2010 (inception) to December 31, 2010	Nine months ended September 30, 2011	Period from August 4, 2010 (inception) to September 30, 2011
		(Unaudited)	(Unaudited)
	(In thousands except per share data)		
Operating expenses:			
Research and development	\$ 400	\$ 5,483	\$ 5,883
General and administrative	384	2,195	2,579
Total operating expenses	<u>784</u>	<u>7,678</u>	<u>8,462</u>
Loss from operations	<u>(784)</u>	<u>(7,678)</u>	<u>(8,462)</u>
Net loss	<u>(784)</u>	<u>(7,678)</u>	<u>(8,462)</u>
Accretion of preferred stock	<u>(2)</u>	<u>(18)</u>	<u>(20)</u>
Net loss applicable to common stockholders	<u>\$ (786)</u>	<u>\$ (7,696)</u>	<u>\$ (8,482)</u>
Net loss per share applicable to common stockholders—basic and diluted	<u>\$ (0.26)</u>	<u>\$ (1.79)</u>	<u>\$ (2.20)</u>
Weighted-average number of common shares used in net loss per share applicable to common stockholders—basic and diluted	<u>2,976</u>	<u>4,291</u>	<u>3,841</u>
Pro forma net loss per share applicable to common stockholders—basic and diluted (unaudited)	<u>\$ (0.17)</u>	<u>\$ (0.38)</u>	
Weighted-average number of common shares used in pro forma net loss per share applicable to common stockholders—basic and diluted (unaudited)	<u>4,638</u>	<u>20,474</u>	

See accompanying notes.

Verastem, Inc.
(A development stage company)

STATEMENTS OF REDEEMABLE CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' (DEFICIT) EQUITY

	Series A redeemable convertible preferred stock		Series B redeemable convertible preferred stock		Common stock		Additional paid-in capital	Deficit accumulated during the development stage	Totals stockholder's (deficit) equity
	Shares	Amount	Share	Amount	Shares	Amount			
(In thousands except for per share data)									
Balance at August 4, 2010 (inception)	—	\$ —	—	\$ —	—	\$ —	—	\$ —	\$ —
Sale of common stock to founders	—	—	—	—	2,500,000	1	—	—	1
Vesting of restricted stock	—	—	—	—	468,747	—	—	—	—
Issuance of common stock in exchange for license	—	—	—	—	583,333	—	46	—	46
Issuance of Series A redeemable convertible preferred stock, net of offering costs of \$79	4,000,000	3,921	—	—	—	—	—	—	—
Accretion of redeemable convertible preferred stock to redemption value	—	2	—	—	—	—	(2)	—	(2)
Stock-based compensation expense	—	—	—	—	—	—	52	—	52
Net loss	—	—	—	—	—	—	—	(784)	(784)
Balance at December 31, 2010	4,000,000	3,923	—	—	3,552,080	1	96	(784)	(687)
Issuance of Series A redeemable convertible preferred stock (unaudited)	12,000,000	12,000	—	—	—	—	—	—	—
Issuance of Series B redeemable convertible preferred stock, net of offering costs of \$113 (unaudited)	—	—	16,025,000	31,937	—	—	—	—	—
Accretion of redeemable convertible preferred stock to redemption value (unaudited)	—	12	—	6	—	—	(18)	—	(18)
Vesting of restricted stock (unaudited)	—	—	—	—	1,434,253	—	2	—	2
Stock-based compensation expense (unaudited)	—	—	—	—	—	—	742	—	742
Net loss (unaudited)	—	—	—	—	—	—	—	(7,678)	(7,678)
Balance at September 30, 2011 (unaudited)	16,000,000	15,935	16,025,000	31,943	4,986,333	1	822	(8,462)	(7,639)
Conversion of redeemable convertible preferred stock into common stock (unaudited)	(16,000,000)	(15,935)	(16,025,000)	(31,943)	32,025,000	3	47,875	—	47,878
Pro forma, September 30, 2011 (unaudited)	—	\$ —	—	\$ —	37,011,333	\$ 4	\$ 48,697	\$ (8,462)	\$ 40,239

See accompanying notes.

Verastem, Inc.
(A development stage company)

STATEMENTS OF CASH FLOWS

	Period from August 4, 2010 (inception) to December 31, 2010	Nine months ended September 30, 2011 (Unaudited) (In thousands)	Period from August 4, 2010 (inception) to September 30, 2011 (Unaudited)
Operating activities			
Net loss	\$ (784)	\$ (7,678)	\$ (8,462)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	—	43	43
Stock-based compensation expense	52	742	794
Common stock issued in exchange for license	46	—	46
Changes in operating assets and liabilities:			
Prepaid expenses and other current assets	(12)	6	(6)
Other assets	—	(132)	(132)
Accounts payable	279	967	1,246
Accrued expenses and deferred rent	89	754	843
Net cash used in operating activities	<u>(330)</u>	<u>(5,298)</u>	<u>(5,628)</u>
Investing activities			
Purchases of property and equipment	(8)	(754)	(762)
Increase in restricted cash	—	(86)	(86)
Net cash used in investing activities	<u>(8)</u>	<u>(840)</u>	<u>(848)</u>
Financing activities			
Proceeds from issuance of redeemable convertible preferred stock	3,921	43,937	47,858
Net proceeds from the issuance of common stock	1	38	39
Net cash provided by financing activities	<u>3,922</u>	<u>43,975</u>	<u>47,897</u>
Increase in cash and cash equivalents	3,584	37,837	41,421
Cash and cash equivalents at beginning of period	—	3,584	—
Cash and cash equivalents at end of period	<u>\$ 3,584</u>	<u>\$ 41,421</u>	<u>\$ 41,421</u>
Supplemental disclosure of non-cash financing activity			
Accretion of redeemable convertible preferred stock to redemption value	<u>\$ 2</u>	<u>\$ 18</u>	<u>\$ 20</u>

See accompanying notes.

Verastem, Inc.
(A development stage company)

NOTES TO FINANCIAL STATEMENTS

December 31, 2010 (information as of September 30, 2011 and for the nine months then ended is unaudited)

1. Organization and basis of presentation

Verastem, Inc. (the "Company"), incorporated on August 4, 2010 as a Delaware corporation, is a biopharmaceutical company focused on discovering and developing proprietary small molecule drugs targeting cancer stem cells along with proprietary companion diagnostics. The Company's operations to date have been limited to organizing and staffing the Company, business planning, raising capital, acquiring and developing its technology, identifying potential product candidates and undertaking preclinical studies of its most advanced product candidates. The Company has not commenced its planned principal operations. Accordingly, the Company is considered to be in the development stage as defined in Financial Accounting Standards Board Accounting Standards Codification Topic 915, *Development Stage Entities*.

The Company is subject to a number of risks similar to other life science companies in the development stage, including, but not limited to, the need to obtain adequate additional funding, possible failure of preclinical testing or clinical trials, inability to obtain marketing approval of product candidates, competitors developing new technological innovations, market acceptance of the Company's products and protection of proprietary technology. If the Company does not successfully commercialize any of its product candidates, it will be unable to generate product revenue or achieve profitability. As of December 31, 2010 and September 30, 2011, the Company had a deficit accumulated during the development stage of \$784,000 and \$8.5 million, respectively. The Company expects that its cash balance at December 31, 2010, the \$12 million of proceeds from the issuance of Series A redeemable convertible preferred stock in April 2011, the \$32.1 million of proceeds from the issuance of Series B redeemable convertible preferred stock in July 2011 and the \$20.1 million of proceeds from the issuance of Series C redeemable convertible preferred stock in November 2011 will fund its operations through at least January 1, 2012.

2. Significant accounting policies

Unaudited interim financial data

The accompanying unaudited September 30, 2011 interim balance sheet and the statements of operations, redeemable convertible preferred stock and stockholders' deficit, and cash flows for the nine months ended September 30, 2011 and the related interim information contained within the notes to the financial statements have been prepared in accordance with the rules and regulations of the Securities and Exchange Commission for interim financial information. Accordingly, they do not include all of the information and the notes required by U.S. generally accepted accounting principles for complete financial statements. In the opinion of management, the unaudited interim financial statements reflect all adjustments, consisting of normal and recurring adjustments, necessary for the fair statement of the Company's financial position at September 30, 2011 and results of its operations and its cash flows for the nine months then ended. The results for the nine months ended September 30, 2011 are not necessarily indicative of future results.

Unaudited pro forma presentation

On October 25, 2011, the Company's board of directors authorized management of the Company to file a registration statement with the Securities and Exchange Commission permitting the Company to sell shares of its common stock to the public. The unaudited pro forma balance sheet as of

Verastem, Inc.
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NOTES TO FINANCIAL STATEMENTS (Continued)
December 31, 2010 (information as of September 30, 2011 and for the nine months then ended is unaudited)

September 30, 2011 reflects the conversion of all Series A and B convertible preferred stock outstanding as of that date into 32,025,000 shares of common stock, occurring immediately prior to the closing of the Company's proposed initial public offering.

Unaudited pro forma net loss per share is computed using the weighted-average number of common shares outstanding after giving effect to the pro forma effect of the conversion of all redeemable convertible preferred stock during the year ended December 31, 2010 and the nine months ended September 30, 2011 into shares of the Company's common stock as if such conversion had occurred at the beginning of the period presented, or the date of original issuance, if later.

Use of estimates

The preparation of the Company's financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ from such estimates.

The Company utilizes significant estimates and assumptions in determining the fair value of its common stock. The Company granted stock options at exercise prices not less than the fair market value of its common stock as determined by the board of directors, with input from management. The board of directors has determined the estimated fair value of the Company's common stock based on a number of objective and subjective factors, including external market conditions affecting the biotechnology industry sector and the prices at which the Company sold shares of redeemable convertible preferred stock, the superior rights and preferences of securities senior to the Company's common stock at the time and the likelihood of achieving a liquidity event, such as an initial public offering or sale of the Company.

The Company utilized various valuation methodologies in accordance with the framework of the 2004 American Institute of Certified Public Accountants Technical Practice Aid, *Valuation of Privately-Held Company Equity Securities Issued as Compensation*, to estimate the fair value of its common stock. The methodologies included an asset-based approach and the current value method for the Company's initial common stock valuation as of November 30, 2010, the option pricing method utilizing the reverse backsolve method to estimate the Company's underlying equity value as of July 31, 2011 and a methodology that determined an estimated value under an IPO scenario and a sale scenario based upon an assessment of the probability of occurrence of each scenario as of September 30, 2011. Each valuation methodology includes estimates and assumptions that require the Company's judgment. These estimates include assumptions regarding future performance, including the successful completion of preclinical studies and clinical trials and the time to completing an IPO or sale. Significant changes to the key assumptions used in the valuations could result in different fair values of common stock at each valuation date.

Segment and geographic information

Operating segments are defined as components of an enterprise about which separate discrete information is available for evaluation by the chief operating decision maker, or decision-making group, in deciding how to allocate resources and in assessing performance. The Company views its

Verastem, Inc.
(A development stage company)

NOTES TO FINANCIAL STATEMENTS (Continued)
December 31, 2010 (information as of September 30, 2011 and for the nine months then ended is unaudited)

operations and manages its business in one operating segment, which is the business of developing drugs that target cancer stem cells, and the Company operates in only one geographic segment.

Comprehensive income (loss)

Comprehensive income (loss) is defined as the change in equity of a business enterprise during a period from transactions and other events and circumstances from non-owner sources. Comprehensive loss was equal to net loss for all periods presented.

Cash and cash equivalents

The Company considers all highly liquid investments with an original or remaining maturity of three months or less at the date of purchase to be cash equivalents. Cash equivalents of \$40.0 million as of September 30, 2011 consist of money market funds. There were no cash equivalents as of December 31, 2010.

Fair value of financial instruments

The Company is required to disclose information on all assets and liabilities reported at fair value that enables an assessment of the inputs used in determining the reported fair values. The fair value hierarchy is now established that prioritizes valuation inputs based on the observable nature of those inputs. The fair value hierarchy applies only to the valuation inputs used in determining the reported fair value of the investments and is not a measure of the investment credit quality. The hierarchy defines three levels of valuation inputs:

- Level 1 inputs Quoted prices in active markets for identical assets or liabilities
- Level 2 inputs Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly
- Level 3 inputs Unobservable inputs that reflect the Company's own assumptions about the assumptions market participants would use in pricing the asset or liability

The following table presents information about the Company's financial assets that have been measured at fair value at September 30, 2011 and indicates the fair value hierarchy of the valuation inputs utilized to determine such fair value (in thousands).

Description	Total	Quoted prices in active markets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
		(Unaudited)		
Cash equivalents	\$ 40,000	\$ 40,000	\$ —	\$ —

There were no financial instruments recorded at fair value as of December 31, 2010. The carrying amounts of accounts payable and accrued expenses approximate their fair values due to their short-term maturities.

Verastem, Inc.
(A development stage company)

NOTES TO FINANCIAL STATEMENTS (Continued)
December 31, 2010 (information as of September 30, 2011 and for the nine months then ended is unaudited)

Concentrations of credit risk and off-balance sheet risk

Cash and cash equivalents are financial instruments that potentially subject the Company to concentrations of credit risk. As of December 31, 2010, substantially all of the Company's cash was deposited in accounts at a single financial institution. As of September 30, 2011, the Company's cash and cash equivalents were deposited at two financial institutions. The Company maintains its cash and cash equivalents with high quality, accredited financial institutions and, accordingly, such funds are subject to minimal credit risk. The Company has no significant off-balance sheet concentrations of credit risk, such as foreign currency exchange contracts, option contracts or other hedging arrangements.

Property and equipment

Property and equipment consists of laboratory equipment, office furniture, and computer equipment. Expenditures for repairs and maintenance are recorded to expense as incurred, whereas major betterments are capitalized as additions to property and equipment. Depreciation is calculated over the following estimated useful lives of the assets:

Laboratory equipment	5 years
Furniture	5 years
Computer equipment	3 years

Upon retirement or sale, the cost of the disposed asset and the related accumulated depreciation are removed from the accounts and any resulting gain or loss is recognized.

The Company reviews its long-lived assets for impairment whenever events or changes in business circumstances indicate that the carrying value of assets may not be fully recoverable and that the useful lives of these assets are no longer appropriate. Each impairment test is based on a comparison of the undiscounted cash flow to the recorded value of the asset. If impairment is indicated, the asset will be written down to its estimated fair value. To date, no such impairment losses have been recorded.

Organizational costs

All organizational costs have been expensed as incurred.

Research and development costs

The Company expenses research and development costs to operations as incurred. Research and development expenses consist of costs associated with research activities, including drug discovery efforts and the development of therapeutic product candidates and companion diagnostics. The Company accounts for nonrefundable advance payments for goods and services that will be used in future research and development activities as expenses when the service has been performed or when the goods have been received rather than when the payment is made. Research and development expenses consist of:

→ employee-related expenses, including salaries, benefits, travel and stock-based compensation expense;

Verastem, Inc.
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NOTES TO FINANCIAL STATEMENTS (Continued)

December 31, 2010 (information as of September 30, 2011 and for the nine months then ended is unaudited)

- > external research and development expenses incurred under arrangements with third parties, such as contract research organizations, or CROs, manufacturing organizations and consultants, including the scientific advisory board;
- > license fees; and
- > facilities, depreciation and other expenses, which include direct and allocated expenses for rent and maintenance of facilities, depreciation of leasehold improvements and equipment, and laboratory and other supplies.

Stock-based compensation

The Company expenses the fair value of employee stock options over the requisite service period, which is the vesting period. Compensation expense is measured using the fair value of the award at the grant date, net of estimated forfeitures, and is adjusted annually to reflect actual forfeitures. The fair value of each stock-based award is estimated using the Black-Scholes option valuation model and is expensed on a straight-line basis over the vesting period.

Stock-based awards issued to nonemployees, including directors for non-board related services, are accounted for based on the fair value of such services received or of the equity instruments issued, whoever is more reliably measured. These stock-based option awards are revalued at each vesting date using the fair value method.

Redeemable convertible preferred stock

The carrying value of the Company's Series A and Series B redeemable convertible preferred stock is adjusted by periodic accretions such that the carrying value will equal the redemption amount at the redemption date. The carrying value is also adjusted to reflect dividends when and if declared by the board of directors. No dividends have been declared by the board of directors since inception.

Income taxes

The Company accounts for income taxes under the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases using enacted tax rates in effect for the year in which the differences are expected to affect taxable income. Tax benefits are recognized when it is more likely than not that a tax position will be sustained during an audit. Deferred tax assets are reduced by a valuation allowance if current evidence indicates that it is considered more likely than not that these benefits will not be realized.

Net loss per share

Basic and diluted net loss per common share is calculated by dividing net loss applicable to common stockholders by the weighted-average number of common shares outstanding during the period, without consideration for common stock equivalents. The Company's potentially dilutive shares, which include redeemable convertible preferred stock, outstanding stock options and unvested restricted stock are considered to be common stock equivalents and are only included in the calculation of diluted net

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NOTES TO FINANCIAL STATEMENTS (Continued)

December 31, 2010 (information as of September 30, 2011 and for the nine months then ended is unaudited)

loss per share when their effect is dilutive. The following table reconciles net loss to net loss applicable to common shareholders (in thousands, except per share data):

	Period from August 4, 2010 (inception) through December 31, 2010	Nine months ended September 30, 2011	Period from August 4, 2010 (inception) to September 30, 2011
		(Unaudited)	(Unaudited)
Net loss	\$ (784)	\$ (7,678)	\$ (8,462)
Accretion of redeemable convertible preferred stock	(2)	(18)	(20)
Net loss applicable to common stockholders	<u>\$ (786)</u>	<u>\$ (7,696)</u>	<u>\$ (8,482)</u>
Weighted-average number of common shares used in net loss per share applicable to common stockholders—basic and diluted	2,976	4,291	3,841
Net loss per share applicable to common stockholders—basic and diluted	\$ (0.26)	\$ (1.79)	\$ (2.20)

The amounts in the table below were excluded from the calculation of diluted net loss per share, prior to the use of the treasury stock method, due to their anti-dilutive effect (in thousands):

	Period from August 4, 2010 (inception) to December 31, 2010	Nine months ended September 30, 2011	Period from August 4, 2010 (inception) to September 30, 2011
		(Unaudited)	(Unaudited)
Preferred stock	4,000	32,025	32,025
Outstanding stock options	620	1,418	1,418
Unvested restricted stock	7,031	5,490	5,490

Verastem, Inc.
(A development stage company)

NOTES TO FINANCIAL STATEMENTS (Continued)

December 31, 2010 (information as of September 30, 2011 and for the nine months then ended is unaudited)

3. Property and equipment

Property and equipment and related accumulated depreciation are as follows (in thousands):

	December 31, 2010	September 30, 2011 (Unaudited)
Computer equipment	\$ —	\$ 27
Laboratory equipment	8	691
Furniture	—	44
	<u>8</u>	<u>762</u>
Less: accumulated depreciation	—	(43)
	<u>\$ 8</u>	<u>\$ 719</u>

The Company did not record any depreciation expense in the period from August 4, 2010 (inception) to December 31, 2010. Depreciation expense was \$43,000 for the nine months ended September 30, 2011 and for the period from August 4, 2010 (inception) to September 30, 2011.

4. Redeemable convertible preferred stock

In November 2010, the Company sold 4 million shares of Series A redeemable convertible preferred stock (Series A Preferred Stock) at a price of \$1.00 per share for gross proceeds of \$4 million. In accordance with the terms of the Series A Stock Purchase Agreement, the Company sold an additional 12 million shares at \$1.00 per share in a second subsequent closing. The milestones necessary to achieve the subsequent closing were met in April 2011 and the Company sold 12 million shares of Series A Preferred Stock for gross proceeds of \$12 million. The Company incurred approximately \$79,000 of issuance costs as part of the first closing of the Series A Preferred Stock. No additional issuance costs were incurred as part of the second closing. The issuance costs are being accreted through the earliest redemption date.

In July 2011, the Company sold approximately 16 million shares of series B redeemable convertible preferred stock (Series B Preferred Stock) at a price of \$2.00 per share for gross proceeds of approximately \$32 million. The Company incurred approximately \$113,000 of issuance costs as part of the closing of the Series B Preferred Stock. The issuance costs are being accreted through the earliest redemption date.

The Company assessed the Series A Preferred Stock and B Preferred Stock (collectively, the Preferred Stock) for any beneficial conversion features or embedded derivatives that would require bifurcation from the Preferred Stock and receive separate accounting treatment. On the date of each issuance, the value of the common stock into which the Preferred Stock is convertible had a fair value less than the effective conversion price of the Preferred Stock and, as such, there was no intrinsic value on the respective commitment dates. No embedded derivatives were identified that would require bifurcation.

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(A development stage company)

NOTES TO FINANCIAL STATEMENTS (Continued)
December 31, 2010 (information as of September 30, 2011 and for the nine months then ended is unaudited)

The rights, preferences, and privileges of Preferred Stock are as follows:

Conversion

Shares of Preferred Stock are convertible into common stock based on a defined conversion ratio, which is originally set at one-for-one, adjustable for certain dilutive events. Conversion is at the option of the holders of Preferred Stock (Preferred Stockholders) at anytime without any additional considerations, although conversion is automatic upon the earlier of the sale of shares of common stock to the public at a price of at least \$3.00 per share, for gross proceeds of at least \$35 million, and where the shares are traded on either the New York Stock Exchange or NASDAQ or upon the written consent of holders of at least 60% of the outstanding Preferred Stock.

Dividends

Prior to the payment of any dividend, except a common stock dividend, to the common stockholders, the Preferred Stockholders are entitled to receive an amount at least equal to the amount that would have been received by the Preferred Stockholders had all shares of Preferred Stock been converted to common stock immediately prior to issuance of the dividend.

Liquidation preference

In the event of any liquidation, dissolution or winding up of the Company, including a deemed liquidation event, such as certain mergers or a disposition of substantially all the assets of the Company, unless holders of at least 60% of the outstanding Preferred Stock elect otherwise, the Preferred Stockholders are entitled to receive, in preference to common stockholders, an amount equal to the Original Issue Price (\$1.00 per share for Series A Preferred Stock and \$2.00 per share for Series B Preferred Stock, adjustable for certain dilutive events) plus all declared but unpaid dividends. If the Company has insufficient assets to pay the Preferred Stockholders the full amount to which they are entitled, the Preferred Stockholders share ratably in any distribution in proportion to the respective amounts which would otherwise be payable.

After payment of these preferential amounts, the remaining assets of the Company are distributable ratably to the holders of common stock and Preferred Stock on an as-converted to common basis. However, the Preferred Stockholders are limited to the receipt of an aggregate amount (including through payment of the preferential amounts described above) equal to the greater of:

- (1) 1.75 times the aggregate amount of the applicable Original Purchase Price, and
- (2) the amount the Preferred Stockholder would have received if all Preferred Stock had been converted to common stock immediately prior to the liquidation event.

Voting rights

Holders of the Preferred Stock are entitled to vote as a single class with the holders of common stock, and have one vote for each equivalent common share into which the Preferred Stock is convertible. A 60% vote of the Preferred Stockholders is required in order to effect a liquidation, reclassification or recapitalization of the Company's capital stock or a deemed liquidation event, such as certain mergers or a disposition of substantially all the assets of the Company, amend the certificate of incorporation

Verastem, Inc.
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NOTES TO FINANCIAL STATEMENTS (Continued)

December 31, 2010 (information as of September 30, 2011 and for the nine months then ended is unaudited)

or bylaws, create or issue shares of another class of stock that is pari passu or senior to the Preferred Stock, repurchase or redeem or pay any dividend on any capital stock, subject to limited exceptions, issue any debt security such that the Company's aggregate indebtedness would exceed \$1 million, acquire capital stock of another entity, increase or decrease the authorized number of directors or increase the number of shares of common stock reserved under the Company's equity incentive plan. The holders of the Series A Preferred Stock are entitled to elect four directors, the Preferred Stockholders and common stockholders, voting as one class on an as-converted basis, are entitled to elect two directors, and the common stockholders are entitled to elect one director.

Redemption

The Preferred Stock is redeemable at the applicable Original Issue Price plus any declared but unpaid dividends. The Series B Preferred Stock is redeemable beginning in 2016 at the demand of holders of at least two-thirds of the Series B Preferred Stock. The Series A Preferred Stock is redeemable upon the redemption of another series of Preferred Stock at the demand of holders of at least two-thirds of the Series A Preferred Stock. The redemption for the Preferred Stock is payable in three equal annual installments.

5. Common stock

The Company has reserved the following shares of common stock for the potential conversion of outstanding Preferred Stock and the exercise of stock options (in thousands):

	December 31, 2010	September 30, 2011
		(Unaudited)
Series A Preferred Stock	16,000	16,000
Series B Preferred Stock	—	16,025
Stock options	1,417	1,971
	<u>17,417</u>	<u>33,996</u>

Each share of common stock is entitled to one vote, subject to certain voting rights of the Preferred Stock as discussed in Note 4. The holders of the common stock are also entitled to receive dividends whenever funds are legally available and when declared by the board of directors, subject to the prior rights of the Preferred Stockholders.

Common stock issued for license

The Company issued 583,333 shares of common stock in the period from August 4, 2010 (inception) to December 31, 2010 in exchange for certain intellectual property rights. The fair value of the common stock was determined to be \$0.08 per share and the fair value was determined to be more readily determinable than the fair value of the license. As a result, the fair value of the shares of approximately \$46,000 was recorded as research and development expense.

Verastem, Inc.
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NOTES TO FINANCIAL STATEMENTS (Continued)

December 31, 2010 (information as of September 30, 2011 and for the nine months then ended is unaudited)

6. Stock-based compensation

In November 2010, the Company adopted the Verastem, Inc. 2010 Equity Incentive Plan (the Plan) under which it may grant incentive stock options (ISOs), nonstatutory stock options (NSOs), restricted stock awards, restricted stock unit awards and stock appreciation rights to purchase up to approximately 1.4 million shares of common stock to eligible employees, officers, directors and consultants. In March 2011, the Company increased the number of shares of common stock available under the Plan to approximately 2.0 million shares. As of September 30, 2011, 105,348 shares are available for future issuance under the Plan. Terms of stock option agreements, including vesting requirements, are determined by the board of directors, subject to the provisions of the Plan. Generally, options granted by the Company vest over four years, expire no later than ten years from the date of grant and have an exercise price equal to the estimated fair value of the common stock as determined by the board of directors on the date of grant.

Restricted common stock

In August 2010, the Company issued 10 million shares of its common stock to the founders at a purchase price of \$0.0001 per share, determined to be the fair value of the common stock on the date of issuance. The shares were issued under restricted stock purchase agreements, which allow the Company, at its discretion, to repurchase unvested shares if the founders terminate their relationship with the Company. Upon execution of the restricted stock purchase agreements, 25% of the shares vested immediately and the remaining shares vest ratably on a quarterly basis over a four year term.

During the nine months ended September 30, 2011, the Company issued 896,000 shares of its common stock to new employees of the Company at a purchase price of \$0.08 per share, determined to be the fair value of the common stock on the date of issuance. The shares were issued under the terms of the Plan, and allow the Company, at its discretion, to repurchase unvested shares if the employees terminate their relationship with the Company. The shares vest over a four year term, with 25% vesting after the first year and the remainder vesting ratably on a quarterly basis for the remaining three years. The purchase price received for the shares was not material to the financial statements. The shares are recorded in stockholders deficit as they vest.

The Company records stock-based compensation expense for the common stock subject to repurchase based on the grant date intrinsic value for employees and the vesting date intrinsic value for non-employees. All of the restricted shares were issued at fair value. The Company has recorded stock-based compensation expense of \$51,000, \$597,000 and \$648,000 for the period from August 4, 2010 (inception) to December 31, 2010, for the nine months ended September 30, 2011 and for the period from August 4, 2011 (inception) to September 30, 2011, respectively, associated with restricted common stock. The \$597,000 recorded for the nine months ended September 30, 2011 includes \$34,000 associated with modifications to certain restricted stock purchase agreements.

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NOTES TO FINANCIAL STATEMENTS (Continued)
December 31, 2010 (information as of September 30, 2011 and for the nine months then ended is unaudited)

A summary of the Company's restricted stock activity and related information is as follows (in thousands, except per share data):

	Shares	Weighted-average purchase price per share
Outstanding at August 4, 2010	—	\$ —
Granted	10,000	0.0001
Vested	(2,969)	0.0001
Outstanding at December 31, 2010	7,031	0.0001
Granted (unaudited)	896	0.0800
Vested (unaudited)	(1,434)	0.0017
Forfeited (unaudited)	(1,003)	0.0335
Outstanding at September 30, 2011 (unaudited)	5,490	0.0066

Stock options

A summary of the Company's stock option activity and related information follows (in thousands, except per share data):

	Shares	Weighted-average price per share	Weighted-average remaining contractual term (years)	Aggregate intrinsic value
Outstanding at August 4, 2010	—	\$ —		
Granted	620	0.08		
Outstanding at December 31, 2010	620	0.08	9.9	\$ 12
Granted (unaudited)	798	0.32		
Outstanding at September 30, 2011 (unaudited)	1,418	0.21	9.5	176
Exercisable at December 31, 2010	—	\$ 0.08	9.9	\$ 12
Exercisable at September 30, 2011 (unaudited)	3	\$ 0.08	9.7	\$ —
Vested and expected to vest at December 31, 2010	620	\$ 0.08	9.9	\$ 12
Vested and expected to vest at September 30, 2011 (unaudited)	1,418	\$ 0.21	9.7	\$ 176

Verastem, Inc.
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NOTES TO FINANCIAL STATEMENTS (Continued)

December 31, 2010 (information as of September 30, 2011 and for the nine months then ended is unaudited)

The fair value of each stock-based award is estimated on the grant date using the Black-Scholes option-pricing model using the following assumptions:

	December 31, 2010	Nine months ended September 30, 2011 (Unaudited)
Risk-free interest rate	2.0%	1.1-2.7%
Dividend yield	—	—
Volatility	67%	69-70%
Expected term (years)	6.1	6.0-6.1

The Company uses the simplified method as prescribed by the Securities and Exchange Commission Staff Accounting Bulletin No. 107, *Share-Based Payment*, to calculate the expected term as it does not have sufficient historical exercise data to provide a reasonable basis upon which to estimate the expected term for options granted to employees and utilizes the contractual term for options granted to non-employees. The expected term is applied to the stock option grant group as a whole, as the Company does not expect substantially different exercise or post-vesting termination behavior among its employee population. The computation of expected volatility is based on the historical volatility of a representative group of companies with similar characteristics to us, including early stage of product development and therapeutic focus. The risk-free interest rate is based on a treasury instrument whose term is consistent with the expected life of the stock options. Management estimates expected forfeitures based on data from a representative group of companies with similar characteristics to us and recognizes compensation costs only for those equity awards expected to vest.

For the period from August 4, 2011 (inception) to December 31, 2010, the Company did not recognize any stock-based compensation for employee stock option grants. The Company recognized total stock-based compensation expense for employee stock option grants of \$8,000 in the nine months ended September 30, 2011 and the period from August 4, 2010 (inception) to September 30, 2011. The weighted-average grant date fair value of options granted in the period from August 4, 2010 (inception) to December 31, 2010, the nine months ended September 30, 2011 and the period from August 4, 2010 (inception) to September 30, 2011 was \$0.05, \$0.21 and \$0.17 per share, respectively.

Stock-based awards issued to nonemployees, including directors for non-board related services, are accounted for using the fair value method. These stock-based option awards are revalued on each vesting and reporting date. The Company recognized total stock-based compensation expense of approximately \$1,000, \$137,000, and \$138,000 in the period from August 4, 2010 (inception) to December 31, 2010, the nine months ended September 30, 2011 and the period from August 4, 2010 (inception) to September 30, 2011, respectively. Due to an operating loss, the Company does not record tax benefits associated with stock-based compensation and option exercises. Tax benefits will be recorded when realized.

At December 31, 2010 and September 30, 2011, there was \$35,000 and \$625,000 of total unrecognized compensation cost related to nonvested stock options, respectively. As of December 31,

Verastem, Inc.
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NOTES TO FINANCIAL STATEMENTS (Continued)

December 31, 2010 (information as of September 30, 2011 and for the nine months then ended is unaudited)

2010 and September 30, 2011, the Company expects to recognize these costs over a remaining weighted-average period of 3.8 years and 3.2 years, respectively.

7. Income taxes

As of December 31, 2010 the Company had federal net operating loss carryforwards of approximately \$570,000 and state net operating loss carryforwards of \$578,000, which are available to reduce future taxable income. The Company also had federal tax credits of \$15,000 and state tax credits of \$5,000, which may be used to offset future tax liabilities. The net operating loss (NOL) and tax credit carryforwards will expire at various dates through 2030. The NOL and tax credit carryforwards are subject to review and possible adjustment by the Internal Revenue Service and state tax authorities. Net operating loss and tax credit carryforwards are subject to review and possible adjustment and may become subject to an annual limitation in the event of certain cumulative changes in the ownership interest of significant shareholders over a three-year period in excess of 50%, as defined under Sections 382 and 383 of the Internal Revenue Code, as well as similar state provisions. This could limit the amount of tax attributes that can be utilized annually to offset future taxable income or tax liabilities. The amount of the annual limitation is determined based on the value of the Company immediately prior to the ownership change. Subsequent ownership changes may further affect the limitation in future years.

A reconciliation of income taxes computed using the U.S. federal statutory rate to that reflected in operations follows:

	Period from August 4, 2010 (inception) to December 31, 2010
Income tax benefit using U.S. federal statutory rate	34.00%
State income taxes, net of federal benefit	5.62%
Research and development tax credits	1.96%
Permanent items	(0.78%)
Change in the valuation allowance	(40.80%)
Other	—
	<u>—%</u>

Verastem, Inc.
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NOTES TO FINANCIAL STATEMENTS (Continued)
December 31, 2010 (information as of September 30, 2011 and for the nine months then ended is unaudited)

The principal components of the Company's deferred tax assets are as follows:

	December 31, 2010
Deferred tax assets:	
Net operating loss carryforwards	\$ 225
Capitalized research and development	55
Research and development credits	18
Stock-based compensation	20
Other	2
Gross deferred tax assets	320
Valuation allowance	(320)
Net deferred tax asset	\$ —

The Company has recorded a valuation allowance against its deferred tax assets at December 31, 2010 because the Company's management believes that it is more likely than not that these assets will not be fully realized. The increase in the valuation allowance in 2010 primarily relates to the net loss incurred by the Company.

Upon inception, the Company adopted accounting guidance related to accounting for uncertainty in income taxes. The Company's reserves related to taxes are based on a determination of whether and how much of a tax benefit taken by the Company in its tax filings or positions is more likely than not to be realized following resolution of any potential contingencies present related to the tax benefit. Upon adoption, the Company recognized no material adjustment for unrecognized income tax benefits. As of the adoption date and through December 31, 2010, the Company had no unrecognized tax benefits or related interest and penalties accrued. The Company has not, as yet, conducted a study of research and development (R&D) credit carryforwards. This study may result in an adjustment to the Company's R&D credit carryforwards; however, until a study is completed and any adjustment is known, no amounts are being presented as an uncertain tax position. A full valuation allowance has been provided against the Company's R&D credits and, if an adjustment is required, this adjustment would be offset by an adjustment to the valuation allowance. Thus, there would be no impact to the balance sheet or statement of operations if an adjustment were required. The Company would recognize both accrued interest and penalties related to unrecognized benefits in income tax expense. The Company's uncertain tax positions are related to years that remain subject to examination by relevant tax authorities. Since the Company is in a loss carryforward position, the Company is generally subject to examination by the U.S. federal, state and local income tax authorities for all tax years in which a loss carryforward is available.

8. Commitments and contingencies

From November 2010 through May 2011, the Company leased office space from a shareholder. There was no formal lease arrangement with the shareholder. Rent paid to the shareholder was \$12,000, \$34,000 and \$46,000 for the period from August 4, 2010 (inception) to December 31, 2010, the

Verastem, Inc.
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NOTES TO FINANCIAL STATEMENTS (Continued)

December 31, 2010 (information as of September 30, 2011 and for the nine months then ended is unaudited)

nine months ended September 30, 2011 and the period from August 4, 2010 (inception) to September 30, 2011, respectively.

In May 2011, the Company entered into a non-cancelable operating lease for office and laboratory space, which expires October 31, 2014. The lease agreement provides for free rent for the first four months of the lease term and includes escalating rent payments. The rent expense is recorded on a straight-line basis over the lease term. The Company is also obligated to pay for certain operating costs and a proportional share of certain common area costs. The Company has the right to extend the lease for a two-year period. The annual rent for each additional year is determined annually at the then fair market rate. The Company secured a letter of credit for \$86,000 in connection with the lease, which is included in restricted cash on the balance sheet. The minimum aggregate future lease commitments are as follows (in thousands):

2011	\$ 115
2012	351
2013	360
2014	307
	<u>\$ 1,133</u>

The Company recorded rent expense of \$12,000, \$199,000 and \$211,000 for the period from August 4, 2010 (inception) to December 31, 2010, the nine months ended September 30, 2011 and the period from August 4, 2010 (inception) to September 30, 2011, respectively.

9. Accrued expenses

Accrued expenses consist of the following (in thousands):

	December 31, 2010	September 30, 2010 (Unaudited)
Professional fees	\$ 35	\$ 173
License fees	30	—
Compensation and related benefits	15	391
Deferred rent	—	25
Contract research organizations	—	103
Other expenses	9	70
	<u>\$ 89</u>	<u>\$ 762</u>

10. License agreements

In October 2010, the Company entered into an exclusive license agreement with an institution for certain intellectual property. The Company paid the licensor an upfront license fee, reimbursed patent related fees and costs incurred by the licensor and an affiliate of the licensor and issued 583,333 shares of common stock to the licensor and entities and individuals affiliated with the licensor. Under the

Verastem, Inc.
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NOTES TO FINANCIAL STATEMENTS (Continued)
December 31, 2010 (information as of September 30, 2011 and for the nine months then ended is unaudited)

terms of the agreement, the Company also agreed to pay annual license maintenance fees, milestone payments, royalties as a percentage of net sales and a percentage of sublicense income the Company receives. Annual license maintenance fees are creditable against royalties earned during the same calendar year. Milestone payments are triggered upon the achievement of specified development, regulatory and commercialization milestones and are not creditable against royalties. Actual amounts due under the agreement will vary depending on the number of products developed, the type and development path of the products, and other related factors. The Company may terminate the agreement at any time with 90 days' prior written notice.

In October 2010, the Company also entered into a nonexclusive license agreement with an institution for certain intellectual property. The Company paid upfront license fees. The Company is obligated to pay an annual license maintenance fee beginning in 2012. The Company may terminate the agreement at any time with 90 days' prior written notice.

In December 2010, the Company entered into a research-only license agreement with an institution for certain intellectual property. The Company paid an upfront license fee and agreed to annual maintenance fees for each cell line licensed per year. The Company may terminate the agreement at any time with 60 days' prior written notice.

The Company recorded total research and development expense of \$135,000, \$25,000 and \$160,000 in the period from August 4, 2010 (inception) to December 31, 2010, the nine months ended September 30, 2011 and the period from August 4, 2010 (inception) to September 30, 2011, respectively, associated with the license agreements. Annual maintenance fees on the licenses total \$95,000 beginning in 2012 up to a maximum of \$170,000 through the term of the agreements and the Company could make milestone payments of up to \$1.6 million under the licenses.

11. Employee benefit plan

In June 2011, the Company adopted a 401(k) retirement and savings plan (the 401(k) Plan) covering all employees. The 401(k) Plan allows employees to make pre-tax contributions up to the maximum allowable amount set by the IRS. Under the 401(k) Plan, the Company may make discretionary contributions as approved by the board of directors. During the nine months ended September 30, 2011 and the period from August 4, 2010 (inception) to September 30, 2011, the Company made contributions to the 401(k) Plan of \$25,000.

12. Subsequent events

The Company reviews all activity subsequent to year end but prior to the issuance of the financial statements for events that could require disclosure or that could impact the carrying value of assets or liabilities as of the balance sheet date. All significant subsequent events have been properly disclosed in the financial statements.

In November 2011, the Company sold approximately 8.9 million shares of Series C redeemable convertible preferred stock (Series C Preferred Stock) at a price of \$2.25 per share for gross proceeds of \$20.1 million. The Original Issue Price of the Series C Preferred Stock is \$2.25 per share. The rights, preferences and privileges of the Series C Preferred Stock are substantially consistent with those described in Note 4 with respect to conversion, dividends, liquidation, voting and redemption.

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NOTES TO FINANCIAL STATEMENTS (Continued)
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However, as a result of the issuance of the Series C Preferred Stock, the vote or consent of the Preferred Stock with respect to conversion, liquidation and the matters described in Note 4 under "Voting" now requires the vote or consent of holders of at least 60% of the Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock voting as a single class in addition to the vote or consent of holders of at least 60% of the Series A Preferred Stock and Series B Preferred Stock voting as a single class. In addition, the Series C Preferred Stock is redeemable beginning in 2016 at the demand of specified holders of the Series C Preferred Stock.



Until _____, 2012 (25 days after commencement of this offering), all dealers that buy, sell, or trade shares of our common stock, whether or not participating in this offering, may be required to deliver a prospectus. This delivery requirement is in addition to the obligation of dealers to deliver a prospectus when acting as underwriters and with respect to their unsold allotments or subscriptions.

Part II—Information not required in prospectus

ITEM 13. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION.

The following table sets forth the expenses to be incurred in connection with the offering described in this Registration Statement, other than underwriting discounts and commissions, all of which will be paid by us. All amounts are estimates except the Securities and Exchange Commission registration fee and the Financial Industry Regulatory Authority, Inc. filing fee.

	Amount
Securities and Exchange Commission registration fee	\$ 5,730
Financial Industry Regulatory Authority, Inc. filing fee	5,500
NASDAQ listing fee	*
Accountants' fees and expenses	*
Legal fees and expenses	*
Blue Sky fees and expenses	*
Transfer Agent's fees and expenses	*
Printing and engraving expenses	*
Miscellaneous	*
Total Expenses	<u>\$ *</u>

* To be filed by amendment.

ITEM 14. INDEMNIFICATION OF DIRECTORS AND OFFICERS.

Section 102 of the Delaware General Corporation Law permits a corporation to eliminate the personal liability of its directors or its stockholders for monetary damages for a breach of fiduciary duty as a director, except where the director breached his or her duty of loyalty, failed to act in good faith, engaged in intentional misconduct or knowingly violated a law, authorized the payment of a dividend or approved a stock repurchase in violation of Delaware corporate law or obtained an improper personal benefit. Our certificate of incorporation provides that no director shall be personally liable to us or our stockholders for monetary damages for any breach of fiduciary duty as a director, notwithstanding any provision of law imposing such liability, except to the extent that the Delaware General Corporation Law prohibits the elimination or limitation of liability of directors for breaches of fiduciary duty.

Section 145 of the Delaware General Corporation Law provides that a corporation has the power to indemnify a director, officer, employee or agent of the corporation and certain other persons serving at the request of the corporation in related capacities against expenses (including attorneys' fees), judgments, fines and amounts paid in settlements actually and reasonably incurred by the person in connection with an action, suit or proceeding to which he or she is party or is threatened to be made a party by reason of such position, if such person acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the corporation, and, in any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful, except that, in the case of actions brought by or in the right of the corporation, no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or other adjudicating court determines that, despite the adjudication of liability but in view of all of the circumstances of the case, such person is fairly and reasonably entitled to indemnification for such expenses which the Court of Chancery or such other court shall deem proper.

Part II—Information not required in prospectus

Our certificate of incorporation provides that we will indemnify each person who was or is a party or threatened to be made a party to any threatened, pending or completed action, suit or proceeding whether civil, criminal, administrative or investigative (other than an action by or in the right of us) by reason of the fact that he or she is or was, or has agreed to become, our director or officer, or is or was serving, or has agreed to serve, at our request as a director, officer, partner, employee or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise (all such persons being referred to as an "Indemnitee"), or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred in connection with such action, suit or proceeding and any appeal therefrom, if such Indemnitee acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, our best interests, and, with respect to any criminal action or proceeding, he or she had no reasonable cause to believe his or her conduct was unlawful.

Our certificate of incorporation also provides that we will indemnify any Indemnitee who was or is a party to an action or suit by or in the right of us to procure a judgment in our favor by reason of the fact that the Indemnitee is or was, or has agreed to become, our director or officer, or is or was serving, or has agreed to serve, at our request as a director, officer, partner, employee or trustee or, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise, or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys' fees) and, to the extent permitted by law, amounts paid in settlement actually and reasonably incurred in connection with such action, suit or proceeding, and any appeal therefrom, if the Indemnitee acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, our best interests, except that no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to us, unless a court determines that, despite such adjudication but in view of all of the circumstances, he or she is entitled to indemnification of such expenses. Notwithstanding the foregoing, to the extent that any Indemnitee has been successful, on the merits or otherwise, he or she will be indemnified by us against all expenses (including attorneys' fees) actually and reasonably incurred by him or her or on his or her behalf in connection therewith. If we don't assume the defense, expenses must be advanced to an Indemnitee under certain circumstances.

We have entered into indemnification agreements with our directors. In general, these agreements provide that we will indemnify the director to the fullest extent permitted by law for claims arising in his or her capacity as a director of our company or in connection with his or her service at our request for another corporation or entity. The indemnification agreements also provide for procedures that will apply in the event that a director makes a claim for indemnification and establish certain presumptions that are favorable to the director.

We maintain a general liability insurance policy which covers certain liabilities of our directors and officers arising out of claims based on acts or omissions in their capacities as directors or officers.

The underwriting agreement we will enter into in connection with the offering of common stock being registered hereby provides that the underwriters will indemnify, under certain conditions, our directors and officers (as well as certain other persons) against certain liabilities arising in connection with such offering.

ITEM 15. RECENT SALES OF UNREGISTERED SECURITIES.

Set forth below is information regarding shares of common stock and preferred stock issued, and options granted, by us within the past three years that were not registered under the Securities Act of

Part II—Information not required in prospectus

1933, as amended, or the Securities Act. Also included is the consideration, if any, received by us for such shares and options and information relating to the section of the Securities Act, or rule of the Securities and Exchange Commission, under which exemption from registration was claimed.

(a) Issuances of securities

In August 2010, we sold an aggregate of 10,000,000 shares of our common stock at a price per share of \$0.0001 for an aggregate purchase price of \$1,000.

In October 2010 and November 2010, we issued an aggregate of 583,333 shares of common stock to the Whitehead Institute and entities and individuals affiliated with the Whitehead Institute pursuant to the terms of our exclusive license agreement with the Whitehead Institute.

In November 2010, we sold an aggregate of 4,000,000 shares of our series A preferred stock at a price per share of \$1.00 for an aggregate purchase price of \$4.0 million. In April 2011 we sold an aggregate of 12,000,000 shares of our series A preferred stock at a price per share of \$1.00 for an aggregate purchase price of \$12 million.

In April 2011, we sold an aggregate of 896,000 shares of our common stock at a price per share of \$0.08 for an aggregate purchase price of \$71,680.

In July 2011, we sold an aggregate of 16,025,000 shares of our series B preferred stock at a price per share of \$2.00 for an aggregate purchase price of \$32.0 million.

In November 2011, we sold an aggregate of 8,934,493 shares of our series C preferred stock at a price per share of \$2.25 for an aggregate purchase price of \$20.1 million.

No underwriters were involved in the foregoing sales of securities. The securities described in this section (a) of Item 15 were issued to investors in reliance upon the exemption from the registration requirements of the Securities Act, as set forth in Section 4(2) under the Securities Act, including in some cases, Regulation D promulgated thereunder, relative to transactions by an issuer not involving any public offering, to the extent an exemption from such registration was required. All purchasers of shares of preferred stock described above represented to us in connection with their purchase that they were accredited investors and were acquiring the shares for their own account for investment purposes only and not with a view to, or for sale in connection with, any distribution thereof. The purchasers received written disclosures that the securities had not been registered under the Securities Act and that any resale must be made pursuant to a registration statement or an available exemption from such registration.

(b) Stock option grants

Since inception, we have issued to certain employees, directors and consultants options to purchase an aggregate of 1,418,000 shares of common stock as of September 30, 2011, of which, as of September 30, 2011, no options had been exercised or forfeited, and options to purchase 1,418,000 shares of common stock remained outstanding at a weighted-average exercise price of \$0.21 per share.

The issuance of stock options and the common stock issuable upon the exercise of such options as described in this section (b) of Item 15 were issued pursuant to written compensatory plans or arrangements with our employees, directors and consultants, in reliance on the exemption from the registration requirements of the Securities Act provided by Rule 701 promulgated under the Securities Act or the exemption set forth in Section 4(2) under the Securities Act and Regulation D promulgated thereunder relative to transactions by an issuer not involving any public offering. All recipients either received adequate information about us or had access, through employment or other relationships, to such information.

Part II—Information not required in prospectus

All of the foregoing securities are deemed restricted securities for purposes of the Securities Act. All certificates representing the issued shares of capital stock described in this Item 15 included appropriate legends setting forth that the securities had not been registered and the applicable restrictions on transfer.

ITEM 16. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES.

The exhibits to the Registration Statement are listed in the Exhibit Index attached hereto and incorporated by reference herein.

ITEM 17. UNDERTAKINGS.

- (a) 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.
- (b) 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 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 Act and will be governed by the final adjudication of such issue.
- (c) 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, the registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Cambridge, Commonwealth of Massachusetts, on this 3rd day of November, 2011.

VERASTEM, INC.

By: /s/ CHRISTOPH WESTPHAL, M.D., PH.D.

Christoph Westphal, M.D., Ph.D.
Chief Executive Officer

SIGNATURES AND POWER OF ATTORNEY

We, the undersigned officers and directors of Verastem, Inc., hereby severally constitute and appoint Christoph Westphal, M.D., Ph.D. and Robert Forrester, and each of them singly (with full power to each of them to act alone), our true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution in each of them for him and in his name, place and stead, and in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement, and any other registration statement for the same offering pursuant to Rule 462(b) under the Securities Act of 1933, and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite or necessary to be done in and about the premises, as full to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or their or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities held on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ CHRISTOPH WESTPHAL, M.D., PH.D.</u> Christoph Westphal, M.D., Ph.D.	Chief Executive Officer and Director (Principal executive officer)	November 3, 2011
<u>/s/ ROBERT FORRESTER</u> Robert Forrester	Chief Operating Officer (Principal financial and accounting officer)	November 3, 2011
<u>/s/ RICHARD ALDRICH</u> Richard Aldrich	Director	November 3, 2011
<u>/s/ JOHN K. CLARKE</u> John K. Clarke	Director	November 3, 2011

Signatures

Signature	Title	Date
<hr/> <i>/s/ ANSBERT GADICKE, M.D.</i> Ansbert Gadicke, M.D.	Director	November 3, 2011
<hr/> <i>/s/ STEPHEN KRAUS</i> Stephen Kraus	Director	November 3, 2011
<hr/> <i>/s/ HENRI TERMEER</i> Henri Termeer	Director	November 3, 2011

Exhibit index

Exhibit number	Description of exhibit
1.1*	Underwriting Agreement
3.1	Amended and Restated Certificate of Incorporation of the Registrant
3.2	Bylaws of the Registrant
3.3*	Restated Certificate of Incorporation of the Registrant to be effective upon the closing of this offering
3.4*	Amended and Restated Bylaws of the Registrant to be effective upon the closing of this offering
4.1*	Specimen certificate evidencing shares of common stock
4.2	Second Amended and Restated Investors' Rights Agreement, dated November 1, 2011, by and among the Registrant and the other parties thereto
5.1*	Opinion of Wilmer Cutler Pickering Hale and Dorr LLP
10.1	2010 Equity Incentive Plan
10.2*	2012 Stock Incentive Plan
10.3*	Form of Incentive Stock Option Agreement under 2012 Stock Incentive Plan
10.4*	Form of Nonqualified Stock Option Agreement under 2012 Stock Incentive Plan
10.5*	Employment Agreement, dated 2012, between the Registrant and Robert Forrester
10.6*	Employment Agreement, dated 2012, between the Registrant and Jonathan Pachter
10.7*	Form of Indemnification Agreement between the Registrant and each director
10.8	Lease Agreement, dated May 2, 2011, between the Registrant and ARE-MA Region No. 38, LLC
10.9†	Exclusive Patent License Agreement and Tangible Property Agreement, dated October 13, 2010, by and among the Registrant and the Whitehead Institute for Biomedical Research
10.10*	Non-exclusive Patent License Agreement, dated October 13, 2010, by and among the Registrant and the Whitehead Institute for Biomedical Research
10.11†	Letter Agreement, dated October 1, 2010, between the Registrant and the Broad Institute
10.12	Letter Agreement, dated July 30, 2010, as amended October 18, 2010, between the Registrant and Piyush Gupta, Ph.D.
10.13	Letter Agreement, dated August 20, 2010, between the Registrant and Eric Lander, Ph.D.
10.14	Letter Agreement, dated July 30, 2010, as amended October 18, 2010, between the Registrant and Robert Weinberg, Ph.D.
23.1	Consent of Ernst & Young LLP
23.2*	Consent of Wilmer Cutler Pickering Hale and Dorr LLP (included in Exhibit 5.1)
24.1	Power of Attorney (included on signature page)

* To be filed by amendment.

† Confidential treatment requested as to portions of the exhibit. Confidential materials omitted and filed separately with the Securities and Exchange Commission.

**AMENDED AND RESTATED
CERTIFICATE OF INCORPORATION
OF
VERASTEM, INC.**

**(Pursuant to Sections 242 and 245 of the
General Corporation Law of the State of Delaware)**

VERASTEM, INC., a corporation organized and existing under and by virtue of the provisions of the General Corporation Law of the State of Delaware (the “**General Corporation Law**”),

DOES HEREBY CERTIFY:

1. That the name of this corporation is **VERASTEM, INC.**, and that this corporation was originally incorporated pursuant to the General Corporation Law on August 4, 2010, under the name **VERASTEM, INC.** The original Certificate of Incorporation was filed with the Secretary of State of the State of Delaware on August 4, 2010, was amended and restated on November 3, 2010, was amended on March 22, 2011 and was amended and restated on July 11, 2011.

2. That the Board of Directors duly adopted resolutions proposing to amend and restate the Amended and Restated Certificate of Incorporation of this corporation, declaring said amendment and restatement to be advisable and in the best interests of this corporation and its stockholders, and authorizing the appropriate officers of this corporation to solicit the consent of the stockholders therefor, which resolution setting forth the proposed amendment and restatement is as follows:

RESOLVED, that the Amended and Restated Certificate of Incorporation of this corporation be amended and restated in its entirety to read as follows:

FIRST: The name of this corporation is **VERASTEM, INC.** (the “**Corporation**”).

SECOND: The address of the registered office of the Corporation in the State of Delaware is c/o United Corporate Services, Inc., 874 Walker Road, Suite C, Dover, County of Kent, Delaware 19904. The name of its registered agent at such address is United Corporate Services, Inc.

THIRD: The nature of the business or purposes to be conducted or promoted is to engage in any lawful act or activity for which corporations may be organized under the General Corporation Law.

FOURTH: The total number of shares of all classes of stock which the Corporation shall have authority to issue is 93,921,586, consisting of (i) 52,960,793 shares of

Common Stock, \$.0001 par value per share (“**Common Stock**”), and (ii) 40,960,793 shares of Preferred Stock, \$.0001 par value per share (“**Preferred Stock**”).

The following is a statement of the designations and the powers, privileges and rights, and the qualifications, limitations or restrictions thereof in respect of each class of capital stock of the Corporation.

A. COMMON STOCK

1. General. The voting, dividend and liquidation rights of the holders of the Common Stock are subject to and qualified by the rights, powers and preferences of the holders of the Preferred Stock set forth herein.

2. Voting. The holders of the Common Stock are entitled to one vote for each share of Common Stock held at all meetings of stockholders (and written actions in lieu of meetings). There shall be no cumulative voting. The number of authorized shares of Common Stock may be increased or decreased (but not below the number of shares thereof then outstanding) by (in addition to any vote of the holders of one or more series of Preferred Stock that may be required by the terms of the Certificate of Incorporation) the affirmative vote of the holders of shares of capital stock of the Corporation representing a majority of the votes represented by all outstanding shares of capital stock of the Corporation entitled to vote, irrespective of the provisions of Section 242(b)(2) of the General Corporation Law.

B. PREFERRED STOCK

16,000,000 shares of the authorized and unissued Preferred Stock of the Corporation are hereby designated “**Series A Preferred Stock**,” 16,025,000 shares of the authorized and unissued Preferred Stock of the Corporation are hereby designated “**Series B Preferred Stock**” and 8,935,793 shares of the authorized and unissued Preferred Stock of the Corporation are hereby designated “**Series C Preferred Stock**.” The Series A Preferred Stock, the Series B Preferred Stock and the Series C Preferred Stock shall have the following rights, preferences, powers, privileges and restrictions, qualifications and limitations. Unless otherwise indicated, references to “Sections” or “Subsections” in this Part B of this Article Fourth refer to sections and subsections of Part B of this Article Fourth.

1. Dividends.

The Corporation shall not declare, pay or set aside any dividends on shares of any other class or series of capital stock of the Corporation (other than dividends on shares of Common Stock payable in shares of Common Stock) unless (in addition to the obtaining of any consents required elsewhere in the Certificate of Incorporation) the holders of the Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock then outstanding shall first receive, or simultaneously receive, a dividend on each outstanding share of Series A Preferred Stock, Series B Preferred Stock and

Series C Preferred Stock in an amount at least equal to (i) in the case of a dividend on Common Stock or any class or series that is convertible into Common Stock, that dividend per share of Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock, as the case may be, as would equal the product of (A) the dividend payable on each share of such class or series determined, if applicable, as if all shares

of such class or series had been converted into Common Stock and (B) the number of shares of Common Stock issuable upon conversion of a share of Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock, as the case may be, in each case calculated on the record date for determination of holders entitled to receive such dividend or (ii) in the case of a dividend on any class or series that is not convertible into Common Stock, at a rate per share of Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock, as the case may be, determined by (A) dividing the amount of the dividend payable on each share of such class or series of capital stock by the original issuance price of such class or series of capital stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to such class or series) and (B) multiplying such fraction by an amount equal to the Series A Original Issue Price, the Series B Original Issue Price or the Series C Original Issue Price (each as defined below), as the case may be; provided that, if the Corporation declares, pays or sets aside, on the same date, a dividend on shares of more than one class or series of capital stock of the Corporation, the dividend payable to the holders of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock pursuant to this Section 1 shall be calculated based upon the dividend on the class or series of capital stock that would result in the highest Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock, as the case may be, dividend. The “**Series A Original Issue Price**” shall mean \$1.00 per share, subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Series A Preferred Stock. The “**Series B Original Issue Price**” shall mean \$2.00 per share, subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Series B Preferred Stock. The “**Series C Original Issue Price**” shall mean \$2.25 per share, subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Series C Preferred Stock.

2. Liquidation, Dissolution or Winding Up; Certain Mergers, Consolidations and Asset Sales.

2.1 Preferential Payments to Holders of Preferred Stock. In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation or Deemed Liquidation Event (as defined below), the holders of shares of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock then outstanding shall be entitled to be paid out of the assets of the Corporation available for distribution to its stockholders before any payment shall be made to the holders of Common Stock by reason of their ownership thereof, an amount per share equal to the Series A Original Issue Price, in the case of Series A Preferred Stock, the Series B Original Issue Price, in the case of Series B Preferred Stock, and the Series C Original Issue Price, in the case of the Series C Preferred Stock, plus any dividends declared but unpaid thereon. If upon any such liquidation, dissolution or winding up of the Corporation or Deemed Liquidation Event, the assets of the Corporation available for distribution to its stockholders shall be insufficient to pay the holders of shares of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock the full amount to which they shall be entitled under this Subsection 2.1, the holders of shares of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock shall share ratably in any distribution of the assets available for distribution in proportion to the respective amounts which would otherwise be payable in respect

of the shares held by them upon such distribution if all amounts payable on or with respect to such shares were paid in full.

2.2 Distribution of Remaining Assets. In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation or Deemed Liquidation Event, after the payment of all preferential amounts required by Section 2.1 to be paid to the holders of shares of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock, the remaining assets of the Corporation available for distribution to its stockholders shall be distributed among the holders of the shares of Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock and Common Stock, pro rata based on the number of shares held by each such holder, treating for this purpose all such securities as if they had been converted to Common Stock pursuant to the terms of the Certificate of Incorporation immediately prior to such dissolution, liquidation or winding up of the Corporation or Deemed Liquidation Event. Notwithstanding the foregoing, upon such liquidation, dissolution or winding up of the Corporation or Deemed Liquidation Event, (i) the amount the holders of shares of Series C Preferred Stock shall be entitled to receive shall be equal to the greater of (A) the amount such holder would be entitled to receive pursuant to the foregoing Subsection 2.1 and the first sentence of this Subsection 2.2, up to an aggregate amount not to exceed 1.75 times the Series C Original Issue Price for each share of Series C Preferred Stock and (B) the amount such holder would have received if all shares of Series C Preferred Stock had been converted into Common Stock immediately prior to such liquidation, dissolution or winding up of the Corporation or Deemed Liquidation Event, (ii) the amount the holders of shares of Series B Preferred Stock shall be entitled to receive shall be equal to the greater of (A) the amount such holder would be entitled to receive pursuant to the foregoing Subsection 2.1 and the first sentence of this Subsection 2.2, up to an aggregate amount not to exceed 1.75 times the Series B Original Issue Price for each share of Series B Preferred Stock and (B) the amount such holder would have received if all shares of Series B Preferred Stock had been converted into Common Stock immediately prior to such liquidation, dissolution or winding up of the Corporation or Deemed Liquidation Event and (iii) the amount the holders of shares of Series A Preferred Stock shall be entitled to receive shall be equal to the greater of (A) the amount such holder would be entitled to receive pursuant to the foregoing Subsection 2.1 and the first sentence of this Subsection 2.2, up to an aggregate amount not to exceed 1.75 times the Series A Original Issue Price for each share of Series A Preferred Stock and (B) the amount such holder would have received if all shares of Series A Preferred Stock had been converted into Common Stock immediately prior to such liquidation, dissolution or winding up of the Corporation or Deemed Liquidation Event. The aggregate amount which a holder of a share of Series A Preferred Stock is entitled to receive under Subsections 2.1 and 2.2 is hereinafter referred to as the “**Series A Liquidation Amount;**” the aggregate amount which a holder of a share of Series B Preferred Stock is entitled to receive under Subsections 2.1 and 2.2 is hereinafter referred to as the “**Series B Liquidation Amount;**” and the aggregate amount which a holder of a share of Series C Preferred Stock is entitled to receive under Subsections 2.1 and 2.2 is hereinafter referred to as the “**Series C Liquidation Amount.**”

2.3 Deemed Liquidation Events.

2.3.1 Definition. Each of the following events shall be considered a “**Deemed Liquidation Event**” unless the holders of (i) at least sixty percent (60%) of the then

outstanding shares of Series A Preferred Stock and Series B Preferred Stock, voting together as a single class and on an as-converted basis, and (ii) at least sixty percent (60%) of the then outstanding shares of Preferred Stock voting together as a single class and on an as-converted basis (such holders, the “**Requisite Investors**”) elect otherwise by written notice sent to the Corporation at least 10 days prior to the effective date of any such event:

- (a) a merger or consolidation in which
 - (i) the Corporation is a constituent party or
 - (ii) a subsidiary of the Corporation is a constituent party and the Corporation issues shares of its capital stock pursuant to such merger or consolidation,

except any such merger or consolidation involving the Corporation or a subsidiary in which the shares of capital stock of the Corporation outstanding immediately prior to such merger or consolidation continue to represent, or are converted into or exchanged for shares of capital stock that represent, immediately following such merger or consolidation, at least a majority, by voting power, of the capital stock of (1) the surviving or resulting corporation or (2) if the surviving or resulting corporation is a wholly owned subsidiary of another corporation immediately following such merger or consolidation, the parent corporation of such surviving or resulting corporation (provided that, for the purpose of this Subsection 2.3.1, all shares of Common Stock issuable upon exercise of Options (as defined below) outstanding immediately prior to such merger or consolidation or upon conversion of Convertible Securities (as defined below) outstanding immediately prior to such merger or consolidation shall be deemed to be outstanding immediately prior to such merger or consolidation and, if applicable, converted or exchanged in such merger or consolidation on the same terms as the actual outstanding shares of Common Stock are converted or exchanged); or

(b) the sale, lease, transfer, exclusive license or other disposition, in a single transaction or series of related transactions, by the Corporation or any subsidiary of the Corporation of all or substantially all the assets of the Corporation and its subsidiaries taken as a whole, or the sale or disposition (whether by merger or otherwise) of one or more subsidiaries of the Corporation if substantially all of the assets of the Corporation and its subsidiaries taken as a whole are held by such subsidiary or subsidiaries, except where such sale, lease, transfer, exclusive license or other disposition is to a wholly owned subsidiary of the Corporation.

2.3.2 Effecting a Deemed Liquidation Event.

(a) The Corporation shall not have the power to effect a Deemed Liquidation Event referred to in Subsection 2.3.1(a) (i) unless the agreement or plan of merger or consolidation for such transaction provides that the consideration payable to the stockholders of the Corporation shall be allocated among the holders of capital stock of the Corporation in accordance with Subsections 2.1 and 2.2.

(b) In the event of a Deemed Liquidation Event referred to in Subsection 2.3.1(a)(ii) or 2.3.1(b), if the Corporation does not effect a dissolution of the

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Corporation under the General Corporation Law within 90 days after such Deemed Liquidation Event, then (i) the Corporation shall send a written notice to each holder of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock no later than the 90th day after the Deemed Liquidation Event advising such holders of their right (and the requirements to be met to secure such right) pursuant to the terms of the following clause (ii) to require the redemption of such shares of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock, and (ii) the Requisite Investors so request in a written instrument delivered to the Corporation not later than 120 days after such Deemed Liquidation Event, the Corporation shall use the consideration received by the Corporation for such Deemed Liquidation Event (net of any retained liabilities associated with the assets sold or technology licensed, as determined in good faith by the Board of Directors of the Corporation), together with any other assets of the Corporation available for distribution to its stockholders, all to the extent permitted by Delaware law governing distributions to stockholders (the “**Available Proceeds**”), on the 150th day after such Deemed Liquidation Event, to redeem all outstanding shares of Series A Preferred Stock, Series B Preferred Stock and/or Series C Preferred Stock, as the case may be, at a price per share equal to the Series A Liquidation Amount, the Series B Liquidation Amount or the Series C Liquidation Amount, as the case may be. Notwithstanding the foregoing, in the event of a redemption pursuant to the preceding sentence, if the Available Proceeds are not sufficient to redeem all outstanding shares of Series A Preferred Stock, Series B Preferred Stock and/or Series C Preferred Stock, the Corporation shall ratably redeem each holder’s shares of Series A Preferred Stock, Series B Preferred Stock and/or Series C Preferred Stock to the fullest extent of such Available Proceeds, and shall redeem the remaining shares as soon as it may lawfully do so under Delaware law governing distributions to stockholders. The provisions of Section 6 shall apply, with such necessary changes in the details thereof as are necessitated by the context, to the redemption of the Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock pursuant to this Subsection 2.3.2(b). Prior to the distribution or redemption provided for in this Subsection 2.3.2(b), the Corporation shall not expend or dissipate the consideration received for such Deemed Liquidation Event, except to discharge expenses incurred in connection with such Deemed Liquidation Event or in the ordinary course of business.

2.3.3 Amount Deemed Paid or Distributed. The amount deemed paid or distributed to the holders of capital stock of the Corporation upon any such Deemed Liquidation Event or redemption shall be the cash or the value of the property, rights or securities paid or distributed to such holders by the Corporation or the acquiring person, firm or other entity. The value of such property, rights or securities shall be determined in good faith by the Board of Directors of the Corporation.

2.3.4 Allocation of Escrow. In the event of a Deemed Liquidation Event, if any portion of the consideration payable to the stockholders of the Corporation is placed into escrow and/or is payable to the stockholders of the Corporation subject to contingencies, the applicable transaction agreement shall provide that (a) the portion of such consideration that is not placed in escrow and not subject to any contingencies (the “**Initial Consideration**”) shall be allocated among the holders of capital stock of the Corporation in accordance with Subsections 2.1 and 2.2 as if the Initial Consideration were the only consideration payable in connection with such Deemed Liquidation Event and (b) any additional consideration which becomes payable to the stockholders of the Corporation upon release from escrow or satisfaction of contingencies shall be allocated among the holders of capital stock of

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the Corporation in accordance with Subsections 2.1 and 2.2 after taking into account the previous payment of the Initial Consideration as part of the same transaction.

3. Voting.

3.1 General. On any matter presented to the stockholders of the Corporation for their action or consideration at any meeting of stockholders of the Corporation (or by written consent of stockholders in lieu of meeting), each holder of outstanding shares of Preferred Stock shall be entitled to cast the number of votes equal to the number of whole shares of Common Stock into which the shares of Preferred Stock held by such holder are convertible as of the record date for determining stockholders entitled to vote on such matter. Except as provided by law or by the other provisions of the Certificate of Incorporation, holders of Preferred Stock shall vote together with the holders of Common Stock as a single class and on an as-converted to Common Stock basis.

3.2 Election of Directors. The holders of record of the shares of Series A Preferred Stock, exclusively and as a separate class, shall be entitled to elect four (4) directors of the Corporation (the “**Series A Directors**”), the holders of record of the shares of Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock and Common Stock, exclusively and as a separate class, shall be entitled to elect two (2) directors of the Corporation, and the holders of record of the shares of Common Stock, exclusively and as a separate class, shall be entitled to elect one (1) director of the Corporation; provided, however, that (i) in the event that the Corporation does not consummate a Qualified Public Offering (as defined below) prior to the first anniversary of the Series C Original Issue Date, the holders of record of the shares of Series C Preferred Stock, exclusively and as a separate class, shall be entitled to elect an additional one (1) director of the Corporation and (ii) in the event of a Series C Redemption Default (as defined in Section 6.1.4 below), the holders of record of the shares of Series C Preferred Stock, exclusively and as a separate class, shall be entitled to elect an additional three (3) directors of the Corporation in accordance with Section 6.1.4 below. Any director elected as provided in the preceding sentence may be removed without cause by, and only by, the affirmative vote of the holders of the shares of the class or series of capital stock entitled to elect such director or directors, given either at a special meeting of such stockholders duly called for that purpose or pursuant to a written consent of stockholders. If the holders of shares of (i) Series A Preferred Stock, (ii) Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock and Common Stock or (iii) Common Stock, as the case may be, fail to elect a sufficient number of directors to fill all directorships for which they are entitled to elect directors, voting exclusively and as a separate class, pursuant to the first sentence of this Subsection 3.2, then any directorship not so filled shall remain vacant until such time as the holders of the (i) Series A Preferred Stock, (ii) Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock and Common Stock or (iii) Common Stock, as the case may be, elect a person to fill such directorship by vote or written consent in lieu of a meeting; and no such directorship may be filled by stockholders of the Corporation other than by the stockholders of the Corporation that are entitled to elect a person to fill such directorship, voting exclusively and as a separate class. At any meeting held for the purpose of electing a director, the presence in person or by proxy of the holders of a majority of the outstanding shares of the class or series entitled to elect such director shall constitute a quorum for the purpose of electing such director. Except as otherwise provided in this Subsection 3.2, a vacancy in any directorship filled by the holders of

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any class or series shall be filled only by vote or written consent in lieu of a meeting of the holders of such class or series or by any remaining director or directors elected by the holders of such class or series pursuant to this Subsection 3.2.

3.3 Preferred Stock Protective Provisions. At any time when at least 893,579 shares of Preferred Stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Preferred Stock) are outstanding, the Corporation shall not, either directly or indirectly by amendment, merger, consolidation or otherwise, do any of the following without (in addition to any other vote required by law or the Certificate of Incorporation) the written consent or affirmative vote of the Requisite Investors, given in writing or by vote at a meeting, consenting or voting (as the case may be) separately as a class on an as-converted to Common Stock basis:

- (a) liquidate, dissolve or wind-up the business and affairs of the Corporation, effect any reclassification, reincorporation or recapitalization of the Corporation’s outstanding shares of capital stock or effect any Deemed Liquidation Event, or consent to any of the foregoing;
- (b) amend, alter or repeal any provision of the Certificate of Incorporation or Bylaws of the Corporation;
- (c) create, or authorize the creation of, or issue or obligate itself to issue shares of (or debt convertible into shares of), any additional class or series of capital stock unless the same ranks junior to the Series A Preferred Stock, the Series B Preferred Stock and the Series C Preferred Stock with respect to the distribution of assets on the liquidation, dissolution or winding up of the Corporation, the payment of dividends and rights of redemption, or increase the authorized number of shares of any additional class or series of capital stock;
- (d) (i) reclassify, alter or amend any existing security of the Corporation that is pari passu with the Series A Preferred Stock, the Series B Preferred Stock or the Series C Preferred Stock in respect of the distribution of assets on the liquidation, dissolution or winding up of the Corporation, the payment of dividends or rights of redemption, if such reclassification, alteration or amendment would render such other security senior to the Series C Preferred Stock in respect of any such right, preference or privilege, or (ii) reclassify, alter or amend any existing security of the Corporation that is junior to the Series A Preferred Stock, the Series B Preferred Stock or the Series C Preferred Stock in respect of the distribution of assets on the liquidation, dissolution or winding up of the Corporation, the payment of dividends or rights of redemption, if such reclassification, alteration or amendment would render such other security senior to or pari passu with the Series A Preferred Stock, the Series B Preferred Stock or the Series C Preferred Stock in respect of any such right, preference or privilege;
- (e) purchase or redeem (or permit any subsidiary to purchase or redeem) or pay or declare any dividend or make any distribution on, any shares of capital stock of the Corporation other than (i) redemptions of or dividends or distributions on the Series A Preferred Stock, the Series B Preferred Stock or the Series C Preferred Stock as expressly authorized herein, (ii) dividends or other distributions payable on the Common Stock solely in

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the form of additional shares of Common Stock and (iii) repurchases of stock from former employees, officers, directors, consultants or other persons who performed services for the Corporation or any subsidiary in connection with the cessation of such employment or service at the lower of the original purchase price or the then-current fair market value thereof;

(f) create, or authorize the creation of, or issue, or authorize the issuance of any debt security, or permit any subsidiary to take any such action with respect to any debt security, if the aggregate indebtedness of the Corporation and its subsidiaries for borrowed money following such action would exceed \$1,000,000;

(g) effect any acquisition of capital stock of another entity which results in the consolidation of that entity into the results of operations of the Company or the acquisition of all or substantially all of the assets of another entity;

(h) increase or decrease the authorized number of directors constituting the Board of Directors; or

(i) increase the number of shares of Common Stock reserved for issuance under the Company's 2010 Equity Incentive Plan beyond 1,999,348 (the "**Reserved Share Amount**") or create any new equity incentive plan.

3.4 Series C Preferred Stock Protective Provision. The Corporation shall not, either directly or indirectly by amendment, merger, consolidation or otherwise, increase or decrease the authorized number of shares of Series C Preferred Stock without (in addition to any other vote required by law or the Certificate of Incorporation) the written consent or affirmative vote of the Requisite Series C Investors (as defined below), given in writing or by vote at a meeting. "**Requisite Series C Investors**" shall mean (i) for so long as both of Eastern Capital Limited ("**ECL**") and H & Q Healthcare Investors and H & Q Life Sciences Investors (together, "**H & Q**") own shares of Series C Preferred Stock, each of ECL and H & Q, (ii) if at any time one, but not both, of ECL or H & Q own shares of Series C Preferred Stock, the one of ECL or H & Q who owns shares of Series C Preferred Stock and (iii) if at any time neither ECL nor H & Q own shares of Series C Preferred Stock, the holders of at least a majority of the then outstanding shares of Series C Preferred Stock.

4. Optional Conversion.

The holders of the Preferred Stock shall have conversion rights as follows (the "**Conversion Rights**"):

4.1 Right to Convert.

4.1.1 Conversion Ratio.

(a) Each share of Series A Preferred Stock shall be convertible, at the option of the holder thereof, at any time and from time to time, and without the payment of additional consideration by the holder thereof, into such number of fully paid and nonassessable shares of Common Stock as is determined by dividing the Series A Original Issue Price by the Series A Conversion Price (as defined below) in effect at the time of conversion. The "**Series A**

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Conversion Price" shall initially be equal to \$1.00. Such initial Series A Conversion Price, and the rate at which shares of Series A Preferred Stock may be converted into shares of Common Stock, shall be subject to adjustment as provided below.

(b) Each share of Series B Preferred Stock shall be convertible, at the option of the holder thereof, at any time and from time to time, and without the payment of additional consideration by the holder thereof, into such number of fully paid and nonassessable shares of Common Stock as is determined by dividing the Series B Original Issue Price by the Series B Conversion Price (as defined below) in effect at the time of conversion. The "**Series B Conversion Price**" shall initially be equal to \$2.00. Such initial Series B Conversion Price, and the rate at which shares of Series B Preferred Stock may be converted into shares of Common Stock, shall be subject to adjustment as provided below.

(c) Each share of Series C Preferred Stock shall be convertible, at the option of the holder thereof, at any time and from time to time, and without the payment of additional consideration by the holder thereof, into such number of fully paid and nonassessable shares of Common Stock as is determined by dividing the Series C Original Issue Price by the Series C Conversion Price (as defined below) in effect at the time of conversion. The "**Series C Conversion Price**" shall initially be equal to \$2.25. Such initial Series C Conversion Price, and the rate at which shares of Series C Preferred Stock may be converted into shares of Common Stock, shall be subject to adjustment as provided below.

4.1.2 Termination of Conversion Rights. In the event of a notice of redemption of any shares of Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock pursuant to Section 6, the Conversion Rights of the shares designated for redemption shall terminate at the close of business on the last full day preceding the date fixed for redemption, unless the redemption price is not fully paid on such redemption date, in which case the Conversion Rights for such shares shall continue until such price is paid in full. In the event of a liquidation, dissolution or winding up of the Corporation or a Deemed Liquidation Event, the Conversion Rights shall terminate at the close of business on the last full day preceding the date fixed for the payment of any such amounts distributable on such event to the holders of Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock, as the case may be.

4.2 Fractional Shares. No fractional shares of Common Stock shall be issued upon conversion of the Preferred Stock. In lieu of any fractional shares to which the holder would otherwise be entitled, the Corporation shall pay cash equal to such fraction multiplied by the fair market value of a share of Common Stock as determined in good faith by the Board of Directors of the Corporation. Whether or not fractional shares would be issuable upon such conversion shall be determined on the basis of the total number of shares of Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock, as the case may be, the holder is at the time converting into Common Stock and the aggregate number of shares of Common Stock issuable upon such conversion.

4.3.1 Notice of Conversion. In order for a holder of Preferred Stock to voluntarily convert shares of Preferred Stock into shares of Common Stock, such holder shall surrender the certificate or certificates for such shares of Preferred Stock (or, if such registered holder alleges that such certificate has been lost, stolen or destroyed, a lost certificate affidavit and agreement reasonably acceptable to the Corporation to indemnify the Corporation against any claim that may be made against the Corporation on account of the alleged loss, theft or destruction of such certificate), at the office of the transfer agent for the applicable series of Preferred Stock (or at the principal office of the Corporation if the Corporation serves as its own transfer agent), together with written notice that such holder elects to convert all or any number of the shares of the Preferred Stock represented by such certificate or certificates and, if applicable, any event on which such conversion is contingent. Such notice shall state such holder's name or the names of the nominees in which such holder wishes the certificate or certificates for shares of Common Stock to be issued. If required by the Corporation, certificates surrendered for conversion shall be endorsed or accompanied by a written instrument or instruments of transfer, in form satisfactory to the Corporation, duly executed by the registered holder or his, her or its attorney duly authorized in writing. The close of business on the date of receipt by the transfer agent (or by the Corporation if the Corporation serves as its own transfer agent) of such certificates (or lost certificate affidavit and agreement) and notice shall be the time of conversion (the "**Conversion Time**"), and the shares of Common Stock issuable upon conversion of the shares represented by such certificate shall be deemed to be outstanding of record as of such date. The Corporation shall, as soon as practicable after the Conversion Time, (i) issue and deliver to such holder of Preferred Stock, or to his, her or its nominees, a certificate or certificates for the number of full shares of Common Stock issuable upon such conversion in accordance with the provisions hereof and a certificate for the number (if any) of the shares of Preferred Stock represented by the surrendered certificate that were not converted into Common Stock, (ii) pay in cash such amount as provided in Subsection 4.2 in lieu of any fraction of a share of Common Stock otherwise issuable upon such conversion and (iii) pay all declared but unpaid dividends on the shares of the applicable series of Preferred Stock converted.

4.3.2 Reservation of Shares. The Corporation shall at all times when any Preferred Stock shall be outstanding, reserve and keep available out of its authorized but unissued capital stock, for the purpose of effecting the conversion of the Preferred Stock, such number of its duly authorized shares of Common Stock as shall from time to time be sufficient to effect the conversion of all outstanding Preferred Stock; and if at any time the number of authorized but unissued shares of Common Stock shall not be sufficient to effect the conversion of all then outstanding shares of the Preferred Stock, the Corporation shall take such corporate action as may be necessary to increase its authorized but unissued shares of Common Stock to such number of shares as shall be sufficient for such purposes, including, without limitation, engaging in best efforts to obtain the requisite stockholder approval of any necessary amendment to the Certificate of Incorporation. Before taking any action which would cause an adjustment reducing the Series A Conversion Price, the Series B Conversion Price or the Series C Conversion Price below the then par value of the shares of Common Stock issuable upon conversion of the applicable series of Preferred Stock, the Corporation will take any corporate action which may, in the opinion of its counsel, be necessary in order that the Corporation may validly and legally issue fully paid and nonassessable shares of Common Stock at such adjusted Series A Conversion Price, Series B Conversion Price or Series C Conversion Price, as the case may be.

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4.3.3 Effect of Conversion. All shares of Preferred Stock which shall have been surrendered for conversion as herein provided shall no longer be deemed to be outstanding and all rights with respect to such shares shall immediately cease and terminate at the Conversion Time, except only the right of the holders thereof to receive shares of Common Stock in exchange therefor, to receive payment in lieu of any fraction of a share otherwise issuable upon such conversion as provided in Subsection 4.2 and to receive payment of any dividends declared but unpaid thereon. Any shares of Preferred Stock so converted shall be retired and cancelled and may not be reissued as shares of such series, and the Corporation may thereafter take such appropriate action (without the need for stockholder action) as may be necessary to reduce the authorized number of shares of such series of Preferred Stock accordingly.

4.3.4 No Further Adjustment. Upon any such conversion, no adjustment to the Series A Conversion Price, the Series B Conversion Price or the Series C Conversion Price shall be made for any declared but unpaid dividends on the Series A Preferred Stock, the Series B Preferred Stock or the Series C Preferred Stock, as the case may be, surrendered for conversion or on the Common Stock delivered upon conversion.

4.3.5 Taxes. The Corporation shall pay any and all issue and other similar taxes that may be payable in respect of any issuance or delivery of shares of Common Stock upon conversion of shares of Preferred Stock pursuant to this Section 4. The Corporation shall not, however, be required to pay any tax which may be payable in respect of any transfer involved in the issuance and delivery of shares of Common Stock in a name other than that in which the shares of Preferred Stock so converted were registered, and no such issuance or delivery shall be made unless and until the person or entity requesting such issuance has paid to the Corporation the amount of any such tax or has established, to the satisfaction of the Corporation, that such tax has been paid.

4.4 Adjustments to Conversion Prices for Diluting Issues.

4.4.1 Special Definitions. For purposes of this Article Fourth, the following definitions shall apply:

- (a) "**Option**" shall mean rights, options or warrants to subscribe for, purchase or otherwise acquire Common Stock or Convertible Securities.
- (b) "**Series A Original Issue Date**" shall mean the date on which the first share of Series A Preferred Stock was issued.
- (c) "**Series B Original Issue Date**" shall mean the date on which the first share of Series B Preferred Stock was issued.
- (d) "**Series C Original Issue Date**" shall mean the date on which the first share of Series C Preferred Stock was issued.
- (e) "**Convertible Securities**" shall mean any evidences of indebtedness, shares or other securities directly or indirectly convertible into or exchangeable for Common Stock, but excluding Options.

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(f) “**Additional Shares of Common Stock**” shall mean all shares of Common Stock issued (or, pursuant to Subsection 4.4.3 below, deemed to be issued) by the Corporation after the Series C Original Issue Date, other than (1) the following shares of Common Stock and (2) shares of Common Stock deemed issued pursuant to the following Options and Convertible Securities (clauses (1) and (2), collectively, “**Exempted Securities**”):

- (i) shares of Common Stock, Options or Convertible Securities issued as a dividend or distribution on Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock, provided (a) the number of shares of Common Stock issued as a dividend or distribution on a share of any series of Preferred Stock multiplied by the number of shares of Common Stock into which a share of such series of Preferred Stock is then convertible is equal to (b) the number of shares of Common Stock issued as a dividend or distribution on a share of every other series of Preferred Stock multiplied by the number of shares of Common Stock into which a share of such series of Preferred Stock is then convertible;
- (ii) shares of Common Stock, Options or Convertible Securities issued by reason of a dividend, stock split, split-up or other distribution on shares of Common Stock that is covered by Subsection 4.5, 4.6, 4.7 or 4.8;
- (iii) shares of Common Stock or Options issued to employees or directors of, or consultants or advisors to, the Corporation or any of its subsidiaries pursuant to a plan, agreement or arrangement approved by the Board of Directors of the Corporation (including at least a majority of the Series A Directors then in office), in any event, not to exceed the Reserved Share Amount;
- (iv) shares of Common Stock or Convertible Securities actually issued upon the exercise of Options or shares of Common Stock actually issued upon the conversion or exchange of Convertible Securities, in each case provided such issuance is pursuant to the terms of such Option or Convertible Security, or upon a Special Mandatory Conversion (as defined below);
- (v) shares of Common Stock issued in a Qualified Public Offering;

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- (vi) shares of Common Stock, Options or Convertible Securities issued to banks, equipment lessors or other financial institutions, or to real property lessors, pursuant to a debt financing, equipment leasing or real property leasing transaction approved by the Board of Directors of the Corporation (including at least a majority of the Series A Directors then in office); or
- (vii) shares of Common Stock, Options or Convertible Securities issued in connection with sponsored research, collaboration, technology license, development, OEM, marketing or other similar agreements or strategic partnerships approved by the affirmative written consent or vote of the Requisite Investors, including without limitation up to 583,333 shares issued (or, pursuant to Subsection 4.4.3 below, deemed to be issued) pursuant to the Exclusive Patent License and Tangible Property Agreement, dated October 13, 2010, by and between the Corporation and the Whitehead Institute for Biomedical Research as in effect on the Series C Original Issue Date and as it may be amended from time to time.

4.4.2 No Adjustment of Conversion Prices. No adjustment in the Series A Conversion Price shall be made as the result of the issuance or deemed issuance of Additional Shares of Common Stock if the Corporation receives written notice from the holders of at least two-thirds of the then outstanding shares of Series A Preferred Stock agreeing that no such adjustment shall be made as the result of the issuance or deemed issuance of such Additional Shares of Common Stock. No adjustment in the Series B Conversion Price shall be made as the result of the issuance or deemed issuance of Additional Shares of Common Stock if the Corporation receives written notice from the holders of at least two-thirds of the then outstanding shares of Series B Preferred Stock agreeing that no such adjustment shall be made as the result of the issuance or deemed issuance of such Additional Shares of Common Stock. No adjustment in the Series C Conversion Price shall be made as the result of the issuance or deemed issuance of Additional Shares of Common Stock if the Corporation receives written notice from the Requisite Series C Investors agreeing that no such adjustment shall be made as the result of the issuance or deemed issuance of such Additional Shares of Common Stock.

4.4.3 Deemed Issue of Additional Shares of Common Stock.

(a) If the Corporation at any time or from time to time after the Series C Original Issue Date shall issue any Options or Convertible Securities (excluding Options or Convertible Securities which are themselves Exempted Securities) or shall fix a record date for the determination of holders of any class of securities entitled to receive any such Options or Convertible Securities, then the maximum number of shares of Common Stock (as set

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forth in the instrument relating thereto, assuming the satisfaction of any conditions to exercisability, convertibility or exchangeability but without regard to any provision contained therein for a subsequent adjustment of such number) issuable upon the exercise of such Options or, in the case of Convertible Securities and Options therefor, the conversion or exchange of such Convertible Securities, shall be deemed to be Additional Shares of Common Stock issued as of the time of such issue or, in case such a record date shall have been fixed, as of the close of business on such record date.

(b) If the terms of any Option or Convertible Security, the issuance of which resulted in an adjustment to the Series A Conversion Price, the Series B Conversion Price or the Series C Conversion Price pursuant to the terms of Subsection 4.4.4, are revised as a result of an amendment to such terms or any other adjustment pursuant to the provisions of such Option or Convertible Security (but excluding automatic adjustments

to such terms pursuant to anti-dilution or similar provisions of such Option or Convertible Security) to provide for either (1) any increase or decrease in the number of shares of Common Stock issuable upon the exercise, conversion and/or exchange of any such Option or Convertible Security or (2) any increase or decrease in the consideration payable to the Corporation upon such exercise, conversion and/or exchange, then, effective upon such increase or decrease becoming effective, the Series A Conversion Price, the Series B Conversion Price or the Series C Conversion Price, as the case may be, computed upon the original issue of such Option or Convertible Security (or upon the occurrence of a record date with respect thereto) shall be readjusted to such Series A Conversion Price, Series B Conversion Price or Series C Conversion Price as would have obtained had such revised terms been in effect upon the original date of issuance of such Option or Convertible Security. Notwithstanding the foregoing, no readjustment pursuant to this clause (b) shall have the effect of increasing the Series A Conversion Price, the Series B Conversion Price or the Series C Conversion Price to an amount which exceeds the lower of (i) the Series A Conversion Price, the Series B Conversion Price or the Series C Conversion Price, as the case may be, in effect immediately prior to the original adjustment made as a result of the issuance of such Option or Convertible Security, or (ii) the Series A Conversion Price, the Series B Conversion Price or the Series C Conversion Price, as the case may be, that would have resulted from any issuances of Additional Shares of Common Stock (other than deemed issuances of Additional Shares of Common Stock as a result of the issuance of such Option or Convertible Security) between the original adjustment date and such readjustment date.

(c) If the terms of any Option or Convertible Security (excluding Options or Convertible Securities which are themselves Exempted Securities), the issuance of which did not result in an adjustment to the Series A Conversion Price, did not result in an adjustment to the Series B Conversion Price or did not result in an adjustment to the Series C Conversion Price pursuant to the terms of Subsection 4.4.4 (either because the consideration per share (determined pursuant to Subsection 4.4.5) of the Additional Shares of Common Stock subject thereto was equal to or greater than the Series A Conversion Price, the Series B Conversion Price or the Series C Conversion Price, as the case may be, then in effect, or because such Option or Convertible Security was issued before the Series A Original Issue Date, the Series B Original Issue Date or the Series C Original Issue Date, as the case may be), are revised after the Series A Original Issue Date, the Series B Original Issue Date or the Series C Original Issue Date, as the case may be, as a result of an amendment to such terms or any other

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adjustment pursuant to the provisions of such Option or Convertible Security (but excluding automatic adjustments to such terms pursuant to anti-dilution or similar provisions of such Option or Convertible Security) to provide for either (1) any increase in the number of shares of Common Stock issuable upon the exercise, conversion or exchange of any such Option or Convertible Security or (2) any decrease in the consideration payable to the Corporation upon such exercise, conversion or exchange, then such Option or Convertible Security, as so amended or adjusted, and the Additional Shares of Common Stock subject thereto (determined in the manner provided in Subsection 4.4.3(a)) shall be deemed to have been issued effective upon such increase or decrease becoming effective.

(d) Upon the expiration or termination of any unexercised Option or unconverted or unexchanged Convertible Security (or portion thereof) which resulted (either upon its original issuance or upon a revision of its terms) in an adjustment to the Series A Conversion Price, the Series B Conversion Price or the Series C Conversion Price pursuant to the terms of Subsection 4.4.4, the Series A Conversion Price, the Series B Conversion Price or the Series C Conversion Price, as the case may be, shall be readjusted to such Series A Conversion Price, such Series B Conversion Price or such Series C Conversion Price, as the case may be, as would have obtained had such Option or Convertible Security (or portion thereof) never been issued.

(e) If the number of shares of Common Stock issuable upon the exercise, conversion and/or exchange of any Option or Convertible Security, or the consideration payable to the Corporation upon such exercise, conversion and/or exchange, is calculable at the time such Option or Convertible Security is issued or amended but is subject to adjustment based upon subsequent events, any adjustment to the Series A Conversion Price, the Series B Conversion Price or the Series C Conversion Price provided for in this Subsection 4.4.3 shall be effected at the time of such issuance or amendment based on such number of shares or amount of consideration without regard to any provisions for subsequent adjustments (and any subsequent adjustments shall be treated as provided in clauses (b) and (c) of this Subsection 4.4.3). If the number of shares of Common Stock issuable upon the exercise, conversion and/or exchange of any Option or Convertible Security, or the consideration payable to the Corporation upon such exercise, conversion and/or exchange, cannot be calculated at all at the time such Option or Convertible Security is issued or amended, any adjustment to the Series A Conversion Price, the Series B Conversion Price or the Series C Conversion Price that would result under the terms of this Subsection 4.4.3 at the time of such issuance or amendment shall instead be effected at the time such number of shares and/or amount of consideration is first calculable (even if subject to subsequent adjustments), assuming for purposes of calculating such adjustment to the Series A Conversion Price, the Series B Conversion Price or the Series C Conversion Price that such issuance or amendment took place at the time such calculation can first be made.

4.4.4 Adjustment of Conversion Prices Upon Issuance of Additional Shares of Common Stock.

(a) In the event the Corporation shall at any time after the Series C Original Issue Date issue Additional Shares of Common Stock (including Additional Shares of Common Stock deemed to be issued pursuant to Subsection 4.4.3), without

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consideration or for a consideration per share less than the Series A Conversion Price in effect immediately prior to such issue, then the Series A Conversion Price shall be reduced, concurrently with such issue, to a price (calculated to the nearest one hundredth of a cent) determined in accordance with the following formula:

$$CP_2 = CP_1 * (A + B) \div (A + C).$$

For purposes of the foregoing formula, the following definitions shall apply:

- (i) "CP₂" shall mean the Series A Conversion Price in effect immediately after such issue of Additional Shares of Common Stock;
- (ii) "CP₁" shall mean the Series A Conversion Price in effect immediately prior to such issue of Additional Shares of Common Stock;

- (iii) “A” shall mean the number of shares of Common Stock outstanding immediately prior to such issue of Additional Shares of Common Stock (treating for this purpose as outstanding all shares of Common Stock issuable upon exercise of Options outstanding immediately prior to such issue or upon conversion or exchange of Convertible Securities (including the Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock) outstanding (assuming exercise of any outstanding Options therefor) immediately prior to such issue);
- (iv) “B” shall mean the number of shares of Common Stock that would have been issued if such Additional Shares of Common Stock had been issued at a price per share equal to CP₁ (determined by dividing the aggregate consideration received by the Corporation in respect of such issue by CP₁); and
- (v) “C” shall mean the number of such Additional Shares of Common Stock issued in such transaction.

(b) In the event the Corporation shall at any time after the Series C Original Issue Date issue Additional Shares of Common Stock (including Additional Shares of Common Stock deemed to be issued pursuant to Subsection 4.4.3), without consideration or for a consideration per share less than the Series B Conversion Price in effect immediately prior to such issue, then the Series B Conversion Price shall be reduced, concurrently with such issue, to a price (calculated to the nearest one hundredth of a cent) determined in accordance with the following formula:

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$$CP_2 = CP_1 * (A + B) \div (A + C).$$

For purposes of the foregoing formula, the following definitions shall apply:

- (i) “CP₂” shall mean the Series B Conversion Price in effect immediately after such issue of Additional Shares of Common Stock;
- (ii) “CP₁” shall mean the Series B Conversion Price in effect immediately prior to such issue of Additional Shares of Common Stock;
- (iii) “A” shall mean the number of shares of Common Stock outstanding immediately prior to such issue of Additional Shares of Common Stock (treating for this purpose as outstanding all shares of Common Stock issuable upon exercise of Options outstanding immediately prior to such issue or upon conversion or exchange of Convertible Securities (including the Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock) outstanding (assuming exercise of any outstanding Options therefor) immediately prior to such issue);
- (iv) “B” shall mean the number of shares of Common Stock that would have been issued if such Additional Shares of Common Stock had been issued at a price per share equal to CP₁ (determined by dividing the aggregate consideration received by the Corporation in respect of such issue by CP₁); and
- (v) “C” shall mean the number of such Additional Shares of Common Stock issued in such transaction.

(c) In the event the Corporation shall at any time after the Series C Original Issue Date issue Additional Shares of Common Stock (including Additional Shares of Common Stock deemed to be issued pursuant to Subsection 4.4.3), without consideration or for a consideration per share less than the Series C Conversion Price in effect immediately prior to such issue, then the Series C Conversion Price shall be reduced, concurrently with such issue, to a price (calculated to the nearest one hundredth of a cent) determined in accordance with the following formula:

$$CP_2 = CP_1 * (A + B) \div (A + C).$$

For purposes of the foregoing formula, the following definitions shall apply:

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- (i) “CP₂” shall mean the Series C Conversion Price in effect immediately after such issue of Additional Shares of Common Stock;
- (ii) “CP₁” shall mean the Series C Conversion Price in effect immediately prior to such issue of Additional Shares of Common Stock;
- (iii) “A” shall mean the number of shares of Common Stock outstanding immediately prior to such issue of Additional Shares of Common Stock (treating for this purpose as outstanding all shares of Common Stock issuable upon exercise of Options outstanding immediately prior to such issue or upon conversion or exchange of Convertible Securities (including the Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock) outstanding (assuming exercise of any outstanding Options therefor) immediately prior to such issue);
- (iv) “B” shall mean the number of shares of Common Stock that would have been issued if such Additional Shares of Common Stock had been issued at a price per share equal to CP₁ (determined by dividing the aggregate consideration received by the Corporation in respect of such issue by CP₁); and

(v) "C" shall mean the number of such Additional Shares of Common Stock issued in such transaction.

4.4.5 Determination of Consideration. For purposes of this Subsection 4.4, the consideration received by the Corporation for the issue of any Additional Shares of Common Stock shall be computed as follows:

- (a) Cash and Property: Such consideration shall:
- (i) insofar as it consists of cash, be computed at the aggregate amount of cash received by the Corporation, excluding amounts paid or payable for accrued interest;
 - (ii) insofar as it consists of property other than cash, be computed at the fair market value thereof at the time of such issue, as determined in good faith by the Board of Directors of the Corporation; and

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- (iii) in the event Additional Shares of Common Stock are issued together with other shares or securities or other assets of the Corporation for consideration which covers both, be the proportion of such consideration so received, computed as provided in clauses (i) and (ii) above, as determined in good faith by the Board of Directors of the Corporation.

(b) Options and Convertible Securities. The consideration per share received by the Corporation for Additional Shares of Common Stock deemed to have been issued pursuant to Subsection 4.4.3, relating to Options and Convertible Securities, shall be determined by dividing

- (i) the total amount, if any, received or receivable by the Corporation as consideration for the issue of such Options or Convertible Securities, plus the minimum aggregate amount of additional consideration (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such consideration) payable to the Corporation upon the exercise of such Options or the conversion or exchange of such Convertible Securities, or in the case of Options for Convertible Securities, the exercise of such Options for Convertible Securities and the conversion or exchange of such Convertible Securities, by
- (ii) the maximum number of shares of Common Stock (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such number) issuable upon the exercise of such Options or the conversion or exchange of such Convertible Securities, or in the case of Options for Convertible Securities, the exercise of such Options for Convertible Securities and the conversion or exchange of such Convertible Securities.

4.4.6 Multiple Closing Dates. In the event the Corporation shall issue on more than one date Additional Shares of Common Stock that are a part of one transaction or a series of related transactions and that would result in an adjustment to the Series A Conversion Price, the Series B Conversion Price or the Series C Conversion Price pursuant to the terms of Subsection 4.4.4 then, upon the final such issuance, the Series A Conversion Price, the Series B Conversion Price or the Series C Conversion Price, as the case may be, shall be readjusted to give effect to all such issuances as if they occurred on the date of the first such issuance (and

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without giving effect to any additional adjustments as a result of any such subsequent issuances within such period).

4.5 Adjustment for Stock Splits and Combinations. If the Corporation shall at any time or from time to time after the Series C Original Issue Date effect a subdivision of the outstanding Common Stock, then the Series A Conversion Price, the Series B Conversion Price and the Series C Conversion Price in effect immediately before that subdivision shall be proportionately decreased so that the number of shares of Common Stock issuable on conversion of each share of such series shall be increased in proportion to such increase in the aggregate number of shares of Common Stock outstanding. If the Corporation shall at any time or from time to time after the Series C Original Issue Date combine the outstanding shares of Common Stock, then the Series A Conversion Price, the Series B Conversion Price and the Series C Conversion Price in effect immediately before the combination shall be proportionately increased so that the number of shares of Common Stock issuable on conversion of each share of such series shall be decreased in proportion to such decrease in the aggregate number of shares of Common Stock outstanding. Any adjustment under this subsection shall become effective at the close of business on the date the subdivision or combination becomes effective.

4.6 Adjustment for Certain Dividends and Distributions. In the event the Corporation at any time or from time to time after the Series C Original Issue Date shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable on the Common Stock in additional shares of Common Stock, then and in each such event the Series A Conversion Price, the Series B Conversion Price and the Series C Conversion Price in effect immediately before such event shall be decreased as of the time of such issuance or, in the event such a record date shall have been fixed, as of the close of business on such record date, by multiplying the Series A Conversion Price, the Series B Conversion Price or the Series C Conversion Price, as the case may be, then in effect by a fraction:

- (i) the numerator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date, and
- (ii) the denominator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date plus the number of shares of Common Stock issuable in payment of such dividend or distribution.

Notwithstanding the foregoing, (a) if such record date shall have been fixed and such dividend is not fully paid or if such distribution is not fully made on the date fixed therefor, the Series A Conversion Price, the Series B Conversion Price and the Series C Conversion Price shall be recomputed accordingly as of the close of business on such record date and thereafter the Series A Conversion Price, the Series B Conversion Price and the Series C Conversion Price shall be adjusted pursuant to this subsection as of the time of actual payment of such dividends or

distributions; and (b) that no such adjustment shall be made with respect to the Series A Conversion Price, the Series B Conversion Price or the Series C Conversion Price if the holders of Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock, as the case may be, simultaneously receive a dividend or other distribution of shares of Common Stock in a number equal to the number of shares of Common Stock as they would have received if all outstanding shares of Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock, as the case may be, had been converted into Common Stock on the date of such event.

4.7 Adjustments for Other Dividends and Distributions. In the event the Corporation at any time or from time to time after the Series C Original Issue Date shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable in securities of the Corporation (other than a distribution of shares of Common Stock in respect of outstanding shares of Common Stock) or in other property and the provisions of Section 1 do not apply to such dividend or distribution, then and in each such event the holders of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock shall receive, simultaneously with the distribution to the holders of Common Stock, a dividend or other distribution of such securities or other property in an amount equal to the amount of such securities or other property as they would have received if all outstanding shares of Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock, as the case may be, had been converted into Common Stock on the date of such event.

4.8 Adjustment for Merger or Reorganization, etc. Subject to the provisions of Subsection 2.3, if there shall occur any reorganization, recapitalization, reclassification, consolidation or merger involving the Corporation in which the Common Stock (but not any of the Series A Preferred Stock, the Series B Preferred Stock or the Series C Preferred Stock) is converted into or exchanged for securities, cash or other property (other than a transaction covered by Subsections 4.5, 4.6 or 4.7), then, following any such reorganization, recapitalization, reclassification, consolidation or merger, each share of Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock, as the case may be, shall thereafter be convertible in lieu of the Common Stock into which it was convertible prior to such event into the kind and amount of securities, cash or other property which a holder of the number of shares of Common Stock of the Corporation issuable upon conversion of one share of Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock, as the case may be, immediately prior to such reorganization, recapitalization, reclassification, consolidation or merger would have been entitled to receive pursuant to such transaction; and, in such case, appropriate adjustment (as determined in good faith by the Board of Directors of the Corporation) shall be made in the application of the provisions in this Section 4 with respect to the rights and interests thereafter of the holders of the Series A Preferred Stock, the Series B Preferred Stock or the Series C Preferred Stock, as the case may be, to the end that the provisions set forth in this Section 4 (including provisions with respect to changes in and other adjustments of the Series A Conversion Price, the Series B Conversion Price or the Series C Conversion Price) shall thereafter be applicable, as nearly as reasonably may be, in relation to any securities or other property thereafter deliverable upon the conversion of the Series A Preferred Stock, the Series B Preferred Stock or the Series C Preferred Stock, as the case may be.

4.9 Special Adjustments for Increase in Option Pool.

4.9.1 Series A Adjustment. If at any time prior to May 3, 2012, the Corporation increases the Reserved Share Amount or otherwise reserves shares of Common Stock for issuance to, or issues shares of Common Stock or grants Options to, employees or directors of, or consultants or advisors to, the Corporation or any of its subsidiaries pursuant to an equity incentive plan, either alone or cumulatively in an amount that exceeds 1,999,348 shares of Common Stock (each such event, a "Series A Reserved Amount Default"), then upon the occurrence of each such Series A Reserved Amount Default during such period, the Series A Conversion Price shall be appropriately adjusted (calculated to the nearest one hundredth of a cent), such that the aggregate number of shares of Series A Preferred Stock issued pursuant to the Series A Purchase Agreement (as defined below) shall continue to represent the same proportion of the Company on a fully-diluted basis (assuming full conversion and exercise of all Options and other Convertible Securities then outstanding, and issuance of all shares and other rights available for issuance under equity incentive plans or pursuant to other instruments (and including the issuance of the shares of Common Stock or Options that resulted in such Series A Reserved Amount Default)), as such shares represented prior to the occurrence of such Series A Reserved Amount Default. "Series A Purchase Agreement" means that certain Series A Preferred Stock Purchase Agreement, dated on or about the Series A Original Issue Date, among the Corporation and the other parties thereto, as the same may be amended, restated or otherwise modified from time to time. For clarity, any such adjustment pursuant to this Subsection 4.9.1 shall be effected simultaneously with any adjustments effected pursuant to Subsections 4.9.2 and 4.9.3 below.

4.9.2 Series B Adjustment. If at any time prior to May 3, 2012, the Corporation increases the Reserved Share Amount or otherwise reserves shares of Common Stock for issuance to, or issues shares of Common Stock or grants Options to, employees or directors of, or consultants or advisors to, the Corporation or any of its subsidiaries pursuant to an equity incentive plan, either alone or cumulatively in an amount that exceeds 1,999,348 shares of Common Stock (each such event, a "Series B Reserved Amount Default"), then upon the occurrence of each such Series B Reserved Amount Default during such period, the Series B Conversion Price shall be appropriately adjusted (calculated to the nearest one hundredth of a cent), such that the aggregate number of shares of Series B Preferred Stock issued pursuant to the Series B Purchase Agreement (as defined below) shall continue to represent the same proportion of the Company on a fully-diluted basis (assuming full conversion and exercise of all Options and other Convertible Securities then outstanding, and issuance of all shares and other rights available for issuance under equity incentive plans or pursuant to other instruments (and including the issuance of the shares of Common Stock or Options that resulted in such Series B Reserved Amount Default)), as such shares represented prior to the occurrence of such Series B Reserved Amount Default. "Series B Purchase Agreement" means that certain Series B Preferred Stock Purchase Agreement, dated on or about the Series B Original Issue Date, among the Corporation and the other parties thereto, as the same may be amended, restated or otherwise modified from time to time. For clarity, any such adjustment pursuant to this Subsection 4.9.2 shall be effected simultaneously with any adjustments effected pursuant to Subsection 4.9.1 above and Subsection 4.9.3 below.

4.9.3 Series C Adjustment. If at any time prior to May 3, 2012, the Corporation increases the Reserved Share Amount or otherwise reserves shares of Common Stock for issuance to, or issues shares of Common Stock or grants Options to, employees or

directors of, or consultants or advisors to, the Corporation or any of its subsidiaries pursuant to an equity incentive plan, either alone or cumulatively in an amount that exceeds 1,999,348 shares of Common Stock (each such event, a “Series C Reserved Amount Default”), then upon the occurrence of each such Series C Reserved Amount Default during such period, the Series C Conversion Price shall be appropriately adjusted (calculated to the nearest one hundredth of a cent), such that the aggregate number of shares of Series C Preferred Stock issued pursuant to the Series C Purchase Agreement (as defined below) shall continue to represent the same proportion of the Company on a fully-diluted basis (assuming full conversion and exercise of all Options and other Convertible Securities then outstanding, and issuance of all shares and other rights available for issuance under equity incentive plans or pursuant to other instruments (and including the issuance of the shares of Common Stock or Options that resulted in such Series C Reserved Amount Default)), as such shares represented prior to the occurrence of such Series C Reserved Amount Default. “Series C Purchase Agreement” means that certain Series C Preferred Stock Purchase Agreement, dated on or about the Series C Original Issue Date, among the Corporation and the other parties thereto, as the same may be amended, restated or otherwise modified from time to time. For clarity, any such adjustment pursuant to this Subsection 4.9.3 shall be effected simultaneously with any adjustments effected pursuant to Subsections 4.9.1 and 4.9.2 above.

4.9.4 IPO Exception. Notwithstanding anything to the contrary in Subsections 4.9.1, 4.9.2 and 4.9.3, if, prior to the consummation of a firm-commitment underwritten public offering, the Corporation adopts a new equity incentive plan, but does not issue shares of Common Stock or Options pursuant to such equity incentive plan until after the consummation of such firm-commitment underwritten public offering (such equity incentive plan, a “Post-IPO Incentive Plan”), (i) none of the increase by the Corporation of the Reserved Share Amount, the adoption by the Corporation of such Post-IPO Incentive Plan or the reservation of shares of Common Stock in an amount in excess of 1,999,384 shares of Common Stock, in each case in connection with such Post-IPO Incentive Plan, shall constitute a Series A Reserved Amount Default, Series B Reserved Amount Default or Series C Reserved Amount Default and (ii) for the avoidance of doubt, there shall be no adjustment to the Series A Conversion Price, Series B Conversion Price or Series C Conversion Price as a result thereof because the adoption of an equity incentive plan and reservation of shares, without issuance of Options for shares of Common Stock thereunder, does not constitute an issuance or deemed issuance of Additional Shares of Common Stock. For the avoidance of doubt, in the event that, prior to the consummation of a firm-commitment underwritten public offering, the Corporation issues shares of Common Stock or grants Options pursuant to a Post-IPO Incentive Plan, such issuance may trigger an adjustment to the Series A Conversion Price, Series B Conversion Price or Series C Conversion Price, as applicable, in accordance with Subsections 4.9.1, 4.9.2 and 4.9.3.

4.10 Certificate as to Adjustments. Upon the occurrence of each adjustment or readjustment of the Series A Conversion Price, the Series B Conversion Price or the Series C Conversion Price pursuant to this Section 4, the Corporation at its expense shall, as promptly as reasonably practicable but in any event not later than 10 days thereafter, compute such adjustment or readjustment in accordance with the terms hereof and furnish to each holder of Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock, as the case may be, a certificate setting forth such adjustment or readjustment (including the kind and amount of

securities, cash or other property into which the Series A Preferred Stock, the Series B Preferred Stock or the Series C Preferred Stock, as the case may be, is convertible) and showing in detail the facts upon which such adjustment or readjustment is based. The Corporation shall, as promptly as reasonably practicable after the written request at any time of any holder of Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock (but in any event not later than 10 days thereafter), furnish or cause to be furnished to such holder a certificate setting forth (i) the Series A Conversion Price, the Series B Conversion Price and the Series C Conversion Price then in effect, and (ii) the number of shares of Common Stock and the amount, if any, of other securities, cash or property which then would be received upon the conversion of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock. The provisions of this Section may be waived with the written consent of the Required Investors.

4.11 Notice of Record Date. In the event:

- (a) the Corporation shall take a record of the holders of its Common Stock (or other capital stock or securities at the time issuable upon conversion of the Series A Preferred Stock, the Series B Preferred Stock or Series C Preferred Stock) for the purpose of entitling or enabling them to receive any dividend or other distribution, or to receive any right to subscribe for or purchase any shares of capital stock of any class or any other securities, or to receive any other security; or
- (b) of any capital reorganization of the Corporation, any reclassification of the Common Stock of the Corporation, or any Deemed Liquidation Event; or
- (c) of the voluntary or involuntary dissolution, liquidation or winding-up of the Corporation,

then, and in each such case, the Corporation will send or cause to be sent to the holders of the Preferred Stock a notice specifying, as the case may be, (i) the record date for such dividend, distribution or right, and the amount and character of such dividend, distribution or right, or (ii) the effective date on which such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation or winding-up is proposed to take place, and the time, if any is to be fixed, as of which the holders of record of Common Stock (or such other capital stock or securities at the time issuable upon the conversion of the Series A Preferred Stock, the Series B Preferred Stock or the Series C Preferred Stock) shall be entitled to exchange their shares of Common Stock (or such other capital stock or securities) for securities or other property deliverable upon such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation or winding-up, and the amount per share and character of such exchange applicable to the Series A Preferred Stock, the Series B Preferred Stock, the Series C Preferred Stock and the Common Stock. Such notice shall be sent at least 10 days prior to the record date or effective date for the event specified in such notice.

5. Mandatory Conversion.

5.1 Trigger Events. Upon either (a) the closing of a Qualified Public Offering or (b) the date and time, or the occurrence of an event, specified by vote or written consent of the Requisite Investors (the time of such closing or the date and time specified or the time of the

event specified in such vote or written consent is referred to herein as the “**Mandatory Conversion Time**”), (i) all outstanding shares of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock shall automatically be converted into shares of Common Stock, at the then effective conversion rate and (ii) such shares may not be reissued by the Corporation. As used herein, “**Qualified Public Offering**” shall mean either (a) the sale of shares of Common Stock to the public at a price of at least \$3.00 per share (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Common Stock), in a firm-commitment underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended, provided that (1) such offering results in at least \$35,000,000 of gross proceeds to the Corporation, and (2) the Common Stock is listed for trading on either the New York Stock Exchange, the NASDAQ Capital Market or the NASDAQ Global Market, or (b) any other firm-commitment underwritten public offering of shares of Common Stock deemed to be a Qualified Public Offering by the vote or written consent of the Requisite Investors.

5.2 **Procedural Requirements.** All holders of record of shares of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock shall be sent written notice of the Mandatory Conversion Time and the place designated for mandatory conversion of all such shares of Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock pursuant to this Section 5. Such notice need not be sent in advance of the occurrence of the Mandatory Conversion Time. Upon receipt of such notice, each holder of shares of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock shall surrender his, her or its certificate or certificates for all such shares (or, if such holder alleges that such certificate has been lost, stolen or destroyed, a lost certificate affidavit and agreement reasonably acceptable to the Corporation to indemnify the Corporation against any claim that may be made against the Corporation on account of the alleged loss, theft or destruction of such certificate) to the Corporation at the place designated in such notice. If so required by the Corporation, certificates surrendered for conversion shall be endorsed or accompanied by written instrument or instruments of transfer, in form satisfactory to the Corporation, duly executed by the registered holder or by his, her or its attorney duly authorized in writing. All rights with respect to the Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock converted pursuant to Subsection 5.1, including the rights, if any, to receive notices and vote (other than as a holder of Common Stock), will terminate at the Mandatory Conversion Time (notwithstanding the failure of the holder or holders thereof to surrender the certificates at or prior to such time), except only the rights of the holders thereof, upon surrender of their certificate or certificates (or lost certificate affidavit and agreement) therefor, to receive the items provided for in the next sentence of this Subsection 5.2. As soon as practicable after the Mandatory Conversion Time and the surrender of the certificate or certificates (or lost certificate affidavit and agreement) for Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock, the Corporation shall issue and deliver to such holder, or to his, her or its nominees, a certificate or certificates for the number of full shares of Common Stock issuable on such conversion in accordance with the provisions hereof, together with cash as provided in Subsection 4.2 in lieu of any fraction of a share of Common Stock otherwise issuable upon such conversion and the payment of any declared but unpaid dividends on the shares of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock converted. Such converted Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock shall be retired and cancelled and may not be reissued as shares of such series, and the Corporation may thereafter take such appropriate action

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(without the need for stockholder action) as may be necessary to reduce the authorized number of shares of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock accordingly.

5A. **Special Mandatory Conversion.**

5A.1. **Trigger Events.** In the event that any holder of shares of Preferred Stock does not participate in a Qualified Financing (as defined below) by purchasing in the aggregate, in such Qualified Financing and within the time period specified by the Corporation (provided that the Corporation has sent to each holder of Preferred Stock at least 20 days written notice of, and the opportunity to purchase its Pro Rata Amount (as defined below) of, the Qualified Financing), such holder’s Pro Rata Amount, then the Applicable Portion (as defined below) of the shares of Preferred Stock held by such holder shall automatically, and without any further action on the part of such holder, be converted into shares of Common Stock at the Series A Conversion Price, the Series B Conversion Price or the Series C Conversion Price, as the case may be, in effect immediately prior to the consummation of such Qualified Financing, effective upon, subject to, and concurrently with, the consummation of the Qualified Financing. For purposes of determining the number of shares of Preferred Stock owned by a holder, and for determining the number of Offered Securities (as defined below) a holder of Preferred Stock has purchased in a Qualified Financing, all shares of Preferred Stock held by Affiliates (as defined below) of such holder shall be aggregated with such holder’s shares and all Offered Securities purchased by Affiliates of such holder shall be aggregated with the Offered Securities purchased by such holder (provided that no shares or securities shall be attributed to more than one entity or person within any such group of affiliated entities or persons). Such conversion is referred to herein as a “**Special Mandatory Conversion**.”

5A.2. **Procedural Requirements.** Upon a Special Mandatory Conversion, each holder of shares of Preferred Stock converted pursuant to Subsection 5A.1 shall be sent written notice of such Special Mandatory Conversion and the place designated for mandatory conversion of all such shares of Preferred Stock pursuant to this Section 5A. Upon receipt of such notice, each holder of such shares of Preferred Stock shall surrender his, her or its certificate or certificates for all such shares (or, if such holder alleges that such certificate has been lost, stolen or destroyed, a lost certificate affidavit and agreement reasonably acceptable to the Corporation to indemnify the Corporation against any claim that may be made against the Corporation on account of the alleged loss, theft or destruction of such certificate) to the Corporation at the place designated in such notice. If so required by the Corporation, certificates surrendered for conversion shall be endorsed or accompanied by written instrument or instruments of transfer, in form satisfactory to the Corporation, duly executed by the registered holder or by his, her or its attorney duly authorized in writing. All rights with respect to the Preferred Stock converted pursuant to Subsection 5A.1, including the rights, if any, to receive notices and vote (other than as a holder of Common Stock), will terminate at the time of the Special Mandatory Conversion (notwithstanding the failure of the holder or holders thereof to surrender the certificates for such shares at or prior to such time), except only the rights of the holders thereof, upon surrender of their certificate or certificates therefor (or lost certificate affidavit and agreement), to receive the items provided for in the next sentence of this Subsection 5A.2. As soon as practicable after the Special Mandatory Conversion and the surrender of the certificate or certificates (or lost certificate affidavit and agreement) for Preferred Stock so converted, the Corporation shall issue

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and deliver to such holder, or to his, her or its nominees, a certificate or certificates for the number of full shares of Common Stock issuable on such conversion in accordance with the provisions hereof, together with cash as provided in Subsection 4.2 in lieu of any fraction of a share of Common Stock

otherwise issuable upon such conversion and the payment of any declared but unpaid dividends on the shares of Preferred Stock converted and a new certificate for the number of shares, if any, of Series A Preferred Stock represented by such surrendered certificate and not converted pursuant to Subsection 5A.1. Such converted Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock shall be retired and cancelled and may not be reissued as shares of such series, and the Corporation may thereafter take such appropriate action (without the need for stockholder action) as may be necessary to reduce the authorized number of shares of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock accordingly.

5A.3. Definitions. For purposes of this Section 5A, the following definitions shall apply:

5A.3.1 “**Affiliate**” shall mean, with respect to any specified Person, any other Person who, directly or indirectly, controls, is controlled by, or is under common control with such Person, including without limitation any stockholder, general partner, managing member, officer or director of such Person, or any venture capital fund or registered investment company now or hereafter existing that is controlled by or under common control with one or more general partners or managing members of, or shares the same management company or investment advisor with, such Person.

5A.3.2 “**Applicable Portion**” shall mean, with respect to any holder of shares of Preferred Stock, a number of shares of Preferred Stock calculated by multiplying the aggregate number of shares of Preferred Stock held by such holder immediately prior to a Qualified Financing by a fraction, the numerator of which is equal to the amount, if positive, by which such holder’s Pro Rata Amount exceeds the number of Offered Securities actually purchased by such holder in such Qualified Financing, and the denominator of which is equal to such holder’s Pro Rata Amount.

5A.3.3 “**Offered Securities**” shall mean the equity securities of the Corporation set aside by the Board of Directors of the Corporation for purchase by holders of outstanding shares of Preferred Stock in connection with a Qualified Financing, and offered to such holders.

5A.3.4 “**Pro Rata Amount**” shall mean, with respect to any holder of Preferred Stock, the lesser of (a) a number of Offered Securities calculated by multiplying the aggregate number of Offered Securities by a fraction, the numerator of which is equal to the number of shares of Preferred Stock (on an as-converted basis) owned by such holder, and the denominator of which is equal to the aggregate number of outstanding shares of Preferred Stock (on an as-converted basis), or (b) the maximum number of Offered Securities that such holder is permitted by the Corporation to purchase in such Qualified Financing, after giving effect to any cutbacks or limitations established by the Board of Directors and applied on a pro rata basis to all holders of Preferred Stock.

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5A.3.5 “**Qualified Financing**” shall mean any transaction involving the issuance or sale of Additional Shares of Common Stock (other than a public offering) with aggregate gross proceeds to the Corporation of no greater than \$50,000,000 after the Series C Original Issue Date which would result in a reduction of the Series C Conversion Price pursuant to the terms of the Certificate of Incorporation (without giving effect to the operation of Subsection 4.4.2), unless the Requisite Investors elect, by written notice sent to the Corporation at least ten (10) days prior to the consummation of the Qualified Financing, that such transaction not be treated as a Qualified Financing for purposes of this Section 5A.

6. Redemption.

6.1 Redemption.

6.1.1 Shares of Series C Preferred Stock shall be redeemed by the Corporation out of funds lawfully available therefor at a price equal to the Series C Original Issue Price per share, plus all declared but unpaid dividends thereon (the “**Series C Redemption Price**”), in three equal annual installments commencing not more than 60 days after receipt by the Corporation at any time after the fifth anniversary of the Series C Original Issue Date, from the Series C Requisite Investors, of written notice requesting redemption of all shares of Series C Preferred Stock (the “**Series C Redemption Notice**”). The date of each such installment shall be referred to as a “**Redemption Date**”. The Corporation shall send a written notice (the “**Notice to Series A and Series B Holders**”) to each holder of Series A Preferred Stock and each holder of Series B Preferred Stock no later than the 20th day after the receipt of the Series C Redemption Notice informing such holder of the receipt of the Series C Redemption Notice. On each Redemption Date, the Corporation shall redeem, on a pro rata basis in accordance with the number of shares of Series C Preferred Stock owned by each holder, that number of outstanding shares of Series C Preferred Stock determined by dividing (i) the total number of shares of Series C Preferred Stock outstanding immediately prior to such Redemption Date by (ii) the number of remaining Redemption Dates (including the Redemption Date to which such calculation applies); provided, however, that if the Corporation receives, no later than 20 days after delivery of the Notice to Series A and Series B Holders by the Corporation, from the holders of at least two-thirds of the then outstanding shares of Series B Preferred Stock, a written notice requesting redemption of all shares of Series B Preferred Stock (the “**Series B Redemption Notice**”), then on each Redemption Date, the Corporation shall redeem, on a pro rata basis in accordance with the number of shares of Series B Preferred Stock owned by each holder, that number of outstanding shares of Series B Preferred Stock determined by dividing (i) the total number of shares of Series B Preferred Stock outstanding immediately prior to such Redemption Date by (ii) the number of remaining Redemption Dates (including the Redemption Date to which such calculation applies); provided further, however that Excluded Shares (as such term is defined in Subsection 6.2) shall not be redeemed and shall be excluded from the calculations set forth in this sentence. If the Corporation does not have sufficient funds legally available to redeem on any Redemption Date all shares of Series C Preferred Stock and Series B Preferred Stock (if requested pursuant to a Series B Redemption Notice) to be redeemed on such Redemption Date, the Corporation shall redeem a pro rata portion of each holder’s redeemable shares of such capital stock out of funds legally available therefor, based on the respective amounts which would otherwise be payable in respect of the shares to be redeemed if the legally available funds

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were sufficient to redeem all such shares, and shall redeem the remaining shares to have been redeemed as soon as practicable after the Corporation has funds legally available therefor.

6.1.2 Shares of Series B Preferred Stock shall be redeemed by the Corporation out of funds lawfully available therefor at a price equal to the Series B Original Issue Price per share, plus all declared but unpaid dividends thereon (the “**Series B Redemption Price**”), in three equal annual installments commencing not more than 60 days after receipt by the Corporation at any time after the fifth anniversary of the Series C Original Issue Date, from the holders of at least two-thirds of the then outstanding shares of the Series B Preferred Stock, of written notice requesting redemption of all shares of Series B Preferred Stock (the “**Series B Redemption Notice**”). The date of each such installment shall be referred to as a “**Redemption Date**.”

The Corporation shall send a written notice (the “**Notice to Series A and Series C Holders**”) to each holder of Series A Preferred Stock and each holder of Series C Preferred Stock no later than the 20th day after the receipt of the Series B Redemption Notice informing such holder of the receipt of the Series B Redemption Notice. On each Redemption Date, the Corporation shall redeem, on a pro rata basis in accordance with the number of shares of Series B Preferred Stock owned by each holder, that number of outstanding shares of Series B Preferred Stock determined by dividing (i) the total number of shares of Series B Preferred Stock outstanding immediately prior to such Redemption Date by (ii) the number of remaining Redemption Dates (including the Redemption Date to which such calculation applies); provided, however, that if the Corporation receives, no later than 20 days after delivery of the Notice to Series A and Series C Holders by the Corporation, from the Requisite Series C Investors, a Series C Redemption Notice, then on each Redemption Date, the Corporation shall redeem, on a pro rata basis in accordance with the number of shares of Series C Preferred Stock owned by each holder, that number of outstanding shares of Series C Preferred Stock determined by dividing (i) the total number of shares of Series C Preferred Stock outstanding immediately prior to such Redemption Date by (ii) the number of remaining Redemption Dates (including the Redemption Date to which such calculation applies); provided further, however that Excluded Shares (as such term is defined in Subsection 6.2) shall not be redeemed and shall be excluded from the calculations set forth in this sentence. If the Corporation does not have sufficient funds legally available to redeem on any Redemption Date all shares of Series B Preferred Stock and Series C Preferred Stock (if requested pursuant to a Series C Redemption Notice) to be redeemed on such Redemption Date, the Corporation shall redeem a pro rata portion of each holder’s redeemable shares of such capital stock out of funds legally available therefor, based on the respective amounts which would otherwise be payable in respect of the shares to be redeemed if the legally available funds were sufficient to redeem all such shares, and shall redeem the remaining shares to have been redeemed as soon as practicable after the Corporation has funds legally available therefor.

6.1.3 Shares of Series A Preferred Stock shall be redeemed by the Corporation out of funds lawfully available therefor at a price equal to the Series A Original Issue Price per share, plus all declared but unpaid dividends thereon (the “**Series A Redemption Price**”), in the case of the Series A Preferred Stock on each Redemption Date if the Corporation receives, no later than 20 days after delivery of the Notice to Series A and Series B Holders or the Notice to Series A and Series C Holders, as the case may be, by the Corporation, from the holders of at least two-thirds of the then outstanding shares of the Series A Preferred Stock, a written notice requesting redemption of all shares of Series A Preferred Stock. On each

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Redemption Date, the Corporation shall redeem, (i) first, the shares of Series C Preferred Stock and Series B Preferred Stock pursuant to Sections 6.1.1 and 6.1.2, and (ii) second, if the Corporation has sufficient funds legally available to redeem shares of Series A Preferred Stock after redemption of the Series C Preferred Stock and Series B Preferred Stock on such Redemption Date, on a pro rata basis in accordance with the number of shares of Series A Preferred Stock owned by each holder of Series A Preferred Stock, that number of outstanding shares of Series A Preferred Stock determined by dividing (A) the total number of shares of Series A Preferred Stock outstanding immediately prior to such Redemption Date by (B) the number of remaining Redemption Dates (including the Redemption Date to which such calculation applies); provided, however, that Excluded Shares (as such term is defined in Subsection 6.2) shall not be redeemed and shall be excluded from the calculations set forth in this sentence. If the Corporation does not have sufficient funds legally available to redeem on any Redemption Date all shares of Series A Preferred Stock to be redeemed on such Redemption Date, the Corporation shall redeem, subject to the immediately preceding sentence, a pro rata portion of each holder’s redeemable shares of such capital stock out of funds legally available therefor, based on the respective amounts which would otherwise be payable in respect of the shares to be redeemed if the legally available funds were sufficient to redeem all such shares of Series A Preferred Stock and, subject to the immediately preceding sentence, shall redeem the remaining shares to have been redeemed as soon as practicable after the Corporation has funds legally available therefor.

6.1.4 In the event of a default by the Corporation on the redemption provisions set forth in this Section 6.1 (a “**Redemption Default**”), the holders of the unredeemed shares of Series A Preferred Stock, Series B Preferred Stock and/or Series C Preferred Stock shall be entitled to default interest at a per annum rate equal to 5% on the unpaid amount, which amount shall be increased by 1% at the end of each three month period thereafter until the Redemption Price, and any interest thereon, is paid in full. In addition and notwithstanding the foregoing sentence above, in the event of a Redemption Default affecting the Series C Preferred Stock (A “**Series C Redemption Default**”), the holders of the unredeemed Series C Preferred Stock shall be entitled to elect three additional directors of the Corporation, until such default is cured.

6.2 Redemption Notice. The Corporation shall send written notice of the mandatory redemption (the “**Redemption Notice**”) to each holder of record of Series A Preferred Stock, Series B Preferred Stock and/or Series C Preferred Stock not less than 40 days prior to each Redemption Date. Each Redemption Notice shall state:

- (a) the number of shares of Series A Preferred Stock, Series B Preferred Stock and/or Series C Preferred Stock held by the holder that the Corporation shall redeem on the Redemption Date specified in the Redemption Notice;
- (b) the Redemption Date and the Redemption Price;
- (c) the date upon which the holder’s right to convert such shares terminates (as determined in accordance with Subsection 4.1); and

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- (d) that the holder is to surrender to the Corporation, in the manner and at the place designated, his, her or its certificate or certificates representing the shares of Series A Preferred Stock, Series B Preferred Stock and/or Series C Preferred Stock to be redeemed.

If the Corporation receives, on or prior to the 20th day after the date of delivery of the Redemption Notice to a holder of Series A Preferred Stock, Series B Preferred Stock and/or Series C Preferred Stock, written notice from such holder that such holder elects to be excluded from the redemption provided in this Section 6, then the shares of Series A Preferred Stock, Series B Preferred Stock and/or Series C Preferred Stock registered on the books of the Corporation in the name of such holder at the time of the Corporation’s receipt of such notice shall thereafter be “**Excluded Shares**.”

6.3 Surrender of Certificates; Payment. On or before the applicable Redemption Date, each holder of shares of Series A Preferred Stock, Series B Preferred Stock and/or Series C Preferred Stock to be redeemed on such Redemption Date, unless such holder has exercised his, her or its right to convert such shares as provided in Section 4, shall surrender the certificate or certificates representing such shares (or, if such registered holder alleges that such certificate has been lost, stolen or destroyed, a lost certificate affidavit and agreement reasonably acceptable to the Corporation to indemnify the Corporation against any claim that may be made against the Corporation on account of the alleged loss, theft or destruction of such certificate) to the Corporation, in the manner and at the place designated in the Redemption Notice, and thereupon the Redemption Price for such shares shall be payable to the

order of the person whose name appears on such certificate or certificates as the owner thereof. In the event less than all of the shares of Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock represented by a certificate are redeemed, a new certificate representing the unredeemed shares of Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock, as the case may be, shall promptly be issued to such holder.

6.4 **Rights Subsequent to Redemption.** If the Redemption Notice shall have been duly given, and if on the applicable Redemption Date the Redemption Price payable upon redemption of the shares of Series A Preferred Stock, Series B Preferred Stock and/or Series C Preferred Stock to be redeemed on such Redemption Date is paid or tendered for payment or deposited with an independent payment agent so as to be available therefor in a timely manner, then notwithstanding that the certificates evidencing any of the shares of Series A Preferred Stock, Series B Preferred Stock and/or Series C Preferred Stock so called for redemption shall not have been surrendered, all rights with respect to such shares shall forthwith after the Redemption Date terminate, except only the right of the holders to receive the Series A Redemption Price, the Series B Redemption Price or the Series C Redemption Price, as the case may be, without interest upon surrender of their certificate or certificates therefor.

7. **Redeemed or Otherwise Acquired Shares.** Any shares of Preferred Stock that are redeemed or otherwise acquired by the Corporation or any of its subsidiaries shall be automatically and immediately cancelled and retired and shall not be reissued, sold or transferred. Neither the Corporation nor any of its subsidiaries may exercise any voting or other rights granted to the holders of Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock following redemption.

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8. **Waiver.** Except as otherwise provided in this Certificate of Incorporation or required by law, any of the rights, powers, preferences and other terms of the Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock set forth herein may be waived on behalf of all holders of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock by the affirmative written consent or vote of the Requisite Investors, provided such waiver by its terms is equally applicable to the holders of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock. Any of the rights of the holders of Series A Preferred Stock may be waived (in a manner that does not apply to the holders of Series B Preferred Stock and Series C Preferred Stock) by the affirmative written consent or vote of at least two-thirds of the then outstanding shares of the Series A Preferred Stock. Any of the rights of the holders of Series B Preferred Stock may be waived (in a manner that does not apply to the holders of Series A Preferred Stock and Series C Preferred Stock) by the affirmative written consent or vote of at least two-thirds of the then outstanding shares of the Series B Preferred Stock. Any of the rights of the holders of Series C Preferred Stock may be waived (in a manner that does not apply to the holders of Series A Preferred Stock and Series B Preferred Stock) by the affirmative written consent or vote of the Series C Requisite Investors.

9. **Notices.** Any notice required or permitted by the provisions of this Article Fourth to be given to a holder of shares of Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock shall be mailed, postage prepaid, to the post office address last shown on the records of the Corporation, or given by electronic communication in compliance with the provisions of the General Corporation Law, and shall be deemed sent upon such mailing or electronic transmission.

FIFTH: Subject to any additional vote required by the Certificate of Incorporation or Bylaws, in furtherance and not in limitation of the powers conferred by statute, the Board of Directors is expressly authorized to make, repeal, alter, amend and rescind any or all of the Bylaws of the Corporation.

SIXTH: Subject to any additional vote required by the Certificate of Incorporation, the number of directors of the Corporation shall be determined in the manner set forth in the Bylaws of the Corporation.

SEVENTH: Elections of directors need not be by written ballot unless the Bylaws of the Corporation shall so provide.

EIGHTH: Meetings of stockholders may be held within or without the State of Delaware, as the Bylaws of the Corporation may provide. The books of the Corporation may be kept outside the State of Delaware at such place or places as may be designated from time to time by the Board of Directors or in the Bylaws of the Corporation.

NINTH: To the fullest extent permitted by law, a director of the Corporation shall not be personally liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director. If the General Corporation Law or any other law of the State of Delaware is amended after approval by the stockholders of this Article Ninth to authorize corporate action further eliminating or limiting the personal liability of directors, then

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the liability of a director of the Corporation shall be eliminated or limited to the fullest extent permitted by the General Corporation Law as so amended.

Any repeal or modification of the foregoing provisions of this Article Ninth by the stockholders of the Corporation shall not adversely affect any right or protection of a director of the Corporation existing at the time of, or increase the liability of any director of the Corporation with respect to any acts or omissions of such director occurring prior to, such repeal or modification.

TENTH: To the fullest extent permitted by applicable law, the Corporation is authorized to provide indemnification of (and advancement of expenses to) directors, officers and agents of the Corporation (and any other persons to which General Corporation Law permits the Corporation to provide indemnification) through Bylaw provisions, agreements with such agents or other persons, vote of stockholders or disinterested directors or otherwise, in excess of the indemnification and advancement otherwise permitted by Section 145 of the General Corporation Law.

Any amendment, repeal or modification of the foregoing provisions of this Article Tenth shall not adversely affect any right or protection of any director, officer or other agent of the Corporation existing at the time of such amendment, repeal or modification.

ELEVENTH: The Corporation renounces any interest or expectancy of the Corporation in, or in being offered an opportunity to participate in, any Excluded Opportunity. An "Excluded Opportunity" is any matter, transaction or interest that is presented to, or acquired, created or developed by, or which otherwise comes into the possession of, (i) any director of the Corporation who is not an employee of the Corporation or any of its

subsidiaries, or (ii) any holder of Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock or any partner, member, director, trustee, stockholder, employee or agent of any such holder, other than someone who is an employee of the Corporation or any of its subsidiaries (collectively, "Covered Persons"), unless such matter, transaction or interest is presented to, or acquired, created or developed by, or otherwise comes into the possession of, a Covered Person expressly and solely in such Covered Person's capacity as a director of the Corporation.

* * *

3. That the foregoing amendment and restatement was approved by the holders of the requisite number of shares of this corporation in accordance with Section 228 of the General Corporation Law.

4. That this Amended and Restated Certificate of Incorporation, which restates and integrates and further amends the provisions of this corporation's Amended and Restated Certificate of Incorporation has been duly adopted in accordance with Sections 242 and 245 of the General Corporation Law.

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IN WITNESS WHEREOF, this Amended and Restated Certificate of Incorporation has been executed by a duly authorized officer of this corporation on this 1st day of November, 2011.

By: /s/ Robert Forrester
Name: Robert Forrester
Title: Chief Operating Officer

BYLAWS
OF
VERASTEM, INC.
(A DELAWARE CORPORATION)

Effective August 10, 2010

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BYLAWS
OF
VERASTEM, INC.
(A DELAWARE CORPORATION)

ARTICLE I

OFFICES

Section 1. Registered Office. The registered office of the corporation in the State of Delaware shall be in the City of Dover, County of Kent.

Section 2. Other Offices. The corporation shall also have and maintain an office or principal place of business at such place as may be fixed by the Board of Directors, and may also have offices at such other places, both within and without the State of Delaware, as the Board of Directors may from time to time determine or the business of the corporation may require.

ARTICLE II

CORPORATE SEAL

Section 3. Corporate Seal. The Board of Directors may adopt a corporate seal. The corporate seal shall consist of a die bearing the name of the corporation and the inscription, "Corporate Seal-Delaware." Said seal may be used by causing it or a facsimile thereof to be impressed or affixed or reproduced or otherwise.

ARTICLE III

STOCKHOLDERS' MEETINGS

Section 4. Place of Meetings. Meetings of the stockholders of the corporation may be held at such place, either within or without the State of Delaware, as may be determined from time to time by the Board of Directors. The Board of Directors may, in its sole discretion, determine that the meeting shall not be held at any place, but may instead be held solely by means of remote communication as provided under the Delaware General Corporation Law ("DGCL").

Section 5. Annual Meeting.

(a) The annual meeting of the stockholders of the corporation, for the purpose of election of directors and for such other business as may lawfully come before it, shall be held on such date and at such time as may be designated from time to time by the Board of Directors. Nominations of persons for election to the Board of Directors of the corporation and the proposal of business to be considered by the stockholders may be made at an annual meeting of

stockholders: (i) pursuant to the corporation's notice of meeting of stockholders; (ii) by or at the direction of the Board of Directors; or (iii) by any stockholder of the corporation who was a stockholder of record at the time of giving of notice provided for in the following paragraph, who is entitled to vote at the meeting and who complied with the notice procedures set forth in Section 5.

(b) At an annual meeting of the stockholders, only such business shall be conducted as shall have been properly brought before the meeting. For nominations or other business to be properly brought before an annual meeting by a stockholder pursuant to clause (iii) of Section 5(a) of these Bylaws, (i) the stockholder must have given timely notice thereof in writing to the Secretary of the corporation, (ii) such other business must be a proper matter for stockholder action under the DGCL, (iii) if the stockholder, or the beneficial owner on whose behalf any such proposal or nomination is made, has provided the corporation with a Solicitation Notice (as defined in this Section 5(b)), such stockholder or beneficial owner must, in the case of a proposal, have delivered a proxy statement and form of proxy to holders of at least the percentage of the corporation's voting shares required under applicable law to carry any such proposal, or, in the case of a nomination or nominations, have delivered a proxy statement and form of proxy to holders of a percentage of the corporation's voting shares reasonably believed by such stockholder or beneficial owner to be sufficient to elect the nominee or nominees proposed to be nominated by such stockholder, and must, in either case, have included in such materials the Solicitation Notice, and (iv) if no Solicitation Notice relating thereto has been timely provided pursuant to this section, the stockholder or beneficial owner proposing such business or nomination must not have solicited a number of proxies sufficient to have required the delivery of such a Solicitation Notice under this Section 5. To be timely, a stockholder's notice shall be delivered to the Secretary at the principal executive offices of the Corporation not later than the close of business on the ninetieth (90th) day nor earlier than the close of business on the one hundred twentieth (120th) day prior to the first anniversary of the preceding year's annual meeting; provided, however, that in the event that the date of the annual meeting is advanced more than thirty (30) days prior to or delayed by more than thirty (30) days after the anniversary of

the preceding year's annual meeting, notice by the stockholder to be timely must be so delivered not earlier than the close of business on the one hundred twentieth (120th) day prior to such annual meeting and not later than the close of business on the later of the ninetieth (90th) day prior to such annual meeting or the tenth (10th) day following the day on which public announcement of the date of such meeting is first made. In no event shall the public announcement of an adjournment of an annual meeting commence a new time period for the giving of a stockholder's notice as described above. Such stockholder's notice shall set forth: (A) as to each person whom the stockholder proposed to nominate for election or reelection as a director all information relating to such person that is required to be disclosed in solicitations of proxies for election of directors in an election contest, or is otherwise required, in each case pursuant to Regulation 14A under the Securities Exchange Act of 1934, as amended (the "1934 Act") and Rule 14a-4(d) thereunder (including such person's written consent to being named in the proxy statement as a nominee and to serving as a director if elected); (B) as to any other business that the stockholder proposes to bring before the meeting, a brief description of the business desired to be brought before the meeting, the reasons for conducting such business at the meeting and any material interest in such business of such stockholder and the beneficial owner, if any, on whose behalf the proposal is made; and (C) as to the stockholder giving the notice and the beneficial owner, if any, on whose behalf the nomination or proposal is made (i)

the name and address of such stockholder, as they appear on the corporation's books, and of such beneficial owner, (ii) the class and number of shares of the corporation which are owned beneficially and of record by such stockholder and such beneficial owner, and (iii) whether either such stockholder or beneficial owner intends to deliver a proxy statement and form of proxy to holders of, in the case of the proposal, at least the percentage of the corporation's voting shares required under applicable law to carry the proposal or, in the case of a nomination or nominations, a sufficient number of holders of the corporation's voting shares to elect such nominee or nominees (an affirmative statement of such intent, a "Solicitation Notice").

(c) Notwithstanding anything in the second sentence of Section 5(b) of these Bylaws to the contrary, in the event that the number of directors to be elected to the Board of Directors of the Corporation is increased and there is no public announcement naming all of the nominees for director or specifying the size of the increased Board of Directors made by the corporation at least one hundred (100) days prior to the first anniversary of the preceding year's annual meeting, a stockholder's notice required by this Section 5 shall also be considered timely, but only with respect to nominees for any new positions created by such increase, if it shall be delivered to the Secretary at the principal executive offices of the corporation not later than the close of business on the tenth (10th) day following the day on which such public announcement is first made by the corporation.

(d) Only such persons who are nominated in accordance with the procedures set forth in this Section 5 shall be eligible to serve as directors and only such business shall be conducted at a meeting of stockholders as shall have been brought before the meeting in accordance with the procedures set forth in this Section 5. Except as otherwise provided by law, the Chairman of the meeting shall have the power and duty to determine whether a nomination or any business proposed to be brought before the meeting was made, or proposed, as the case may be, in accordance with the procedures set forth in these Bylaws and, if any proposed nomination or business is not in compliance with these Bylaws, to declare that such defective proposal or nomination shall not be presented for stockholder action at the meeting and shall be disregarded.

(e) Notwithstanding the foregoing provisions of this Section 5, in order to include information with respect to a stockholder proposal in the proxy statement and form of proxy for a stockholders' meeting, stockholders must provide notice as required by the regulations promulgated under the 1934 Act. Nothing in these Bylaws shall be deemed to affect any rights of stockholders to request inclusion of proposals in the corporation proxy statement pursuant to Rule 14a-8 under the 1934 Act.

(f) For purposes of this Section 5, "public announcement" shall mean disclosure in a press release reported by the Dow Jones News Service, Associated Press or comparable national news service or in a document publicly filed by the corporation with the Securities and Exchange Commission pursuant to Section 13, 14 or 15(d) of the 1934 Act.

Section 6. Special Meetings.

(a) Special meetings of the stockholders of the corporation may be called, for any purpose or purposes, by (i) the Chairman of the Board of Directors, (ii) the Chief Executive Officer, or (iii) the Board of Directors pursuant to a resolution adopted by a majority of the total

number of authorized directors (whether or not there exist any vacancies in previously authorized directorships at the time any such resolution is presented to the Board of Directors for adoption), and shall be held at such place, on such date, and at such time as the Board of Directors shall fix.

(b) If a special meeting is properly called by any person or persons other than the Board of Directors, the request shall be in writing, specifying the general nature of the business proposed to be transacted, and shall be delivered personally or sent by certified or registered mail, return receipt requested, or by telegraphic or other facsimile transmission to the Chairman of the Board of Directors, the Chief Executive Officer, or the Secretary of the corporation. No business may be transacted at such special meeting otherwise than specified in such notice. The Board of Directors shall determine the time and place of such special meeting, which shall be held not less than thirty-five (35) nor more than one hundred twenty (120) days after the date of the receipt of the request. Upon determination of the time and place of the meeting, the officer receiving the request shall cause notice to be given to the stockholders entitled to vote, in accordance with the provisions of Section 7 of these Bylaws. Nothing contained in this paragraph (b) shall be construed as limiting, fixing, or affecting the time when a meeting of stockholders called by action of the Board of Directors may be held.

Section 7. Notice of Meetings. Except as otherwise provided by law, notice, given in writing or by electronic transmission, of each meeting of stockholders shall be given not less than ten (10) nor more than sixty (60) days before the date of the meeting to each stockholder entitled to vote at such meeting, such notice to specify the place, if any, date and hour, in the case of special meetings, the purpose or purposes of the meeting, and the means of remote communications, if any, by which stockholders and proxyholders may be deemed to be present in person and vote at any such meeting. If mailed, notice is given when deposited in the United States mail, postage prepaid, directed to the stockholder at such stockholder's address as it appears on the records of the corporation. Notice of the time, place, if any, and purpose of any meeting of stockholders may be waived in writing, signed by the person entitled to notice thereof or by electronic transmission by such person, either before or after such meeting, and will be waived by any stockholder by his attendance thereat in person, by remote communication, if applicable, or by proxy, except when the stockholder attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Any stockholder so waiving notice of such meeting shall be bound by the proceedings of any such meeting in all respects as if due notice thereof had been given.

Section 8. Quorum. At all meetings of stockholders, except where otherwise provided by statute or by the Certificate of Incorporation, or by these Bylaws, the presence, in person, by remote communication, if applicable, or by proxy duly authorized, of the holders of a majority of the outstanding shares of stock entitled to vote shall constitute a quorum for the transaction of business. In the absence of a quorum, any meeting of stockholders may be adjourned, from time to time, either by the chairman of the meeting or by vote of the holders of a majority of the shares represented thereat, but no other business shall be transacted at such meeting. The stockholders present at a duly called or convened meeting, at which a quorum is present, may continue to transact business until adjournment, notwithstanding the withdrawal of enough stockholders to leave less than a quorum. Except as otherwise provided by statute, or by the Certificate of Incorporation or these Bylaws, in all matters other than the election of

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directors, the affirmative vote of a majority of shares present in person, by remote communication, if applicable, or represented by proxy duly authorized at the meeting and entitled to vote generally on the subject matter shall be the act of the stockholders. Except as otherwise provided by statute, the Certificate of Incorporation or these Bylaws, directors shall be elected by a plurality of the votes of the shares present in person, by remote communication, if applicable, or represented by proxy duly authorized at the meeting and entitled to vote generally on the election of directors. Where a separate vote by a class or classes or series is required, except where otherwise provided by the statute or by the Certificate of Incorporation or these Bylaws, a majority of the outstanding shares of such class or classes or series, present in person, by remote communication, if applicable, or represented by proxy duly authorized, shall constitute a quorum entitled to take action with respect to that vote on that matter. Except where otherwise provided by statute or by the Certificate of Incorporation or these Bylaws, the affirmative vote of the majority (plurality, in the case of the election of directors) of shares of such class or classes or series present in person, by remote communication, if applicable, or represented by proxy at the meeting shall be the act of such class or classes or series.

Section 9. Adjournment and Notice of Adjourned Meetings. Any meeting of stockholders, whether annual or special, may be adjourned from time to time either by the chairman of the meeting or by the vote of a majority of the shares present in person, by remote communication, if applicable, or represented by proxy. When a meeting is adjourned to another time or place, if any, notice need not be given of the adjourned meeting if the time and place, if any, thereof are announced at the meeting at which the adjournment is taken. At the adjourned meeting, the corporation may transact any business which might have been transacted at the original meeting. If the adjournment is for more than thirty (30) days or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting.

Section 10. Voting Rights. For the purpose of determining those stockholders entitled to vote at any meeting of the stockholders, except as otherwise provided by law, only persons in whose names shares stand on the stock records of the corporation on the record date, as provided in Section 12 of these Bylaws, shall be entitled to vote at any meeting of stockholders. Every person entitled to vote or execute consents shall have the right to do so either in person, by remote communication, if applicable, or by an agent or agents authorized by a proxy granted in accordance with Delaware law. An agent so appointed need not be a stockholder. No proxy shall be voted after three (3) years from its date of creation unless the proxy provides for a longer period.

Section 11. Joint Owners of Stock. If shares or other securities having voting power stand of record in the names of two (2) or more persons, whether fiduciaries, members of a partnership, joint tenants, tenants in common, tenants by the entirety, or otherwise, or if two (2) or more persons have the same fiduciary relationship respecting the same shares, unless the Secretary is given written notice to the contrary and is furnished with a copy of the instrument or order appointing them or creating the relationship wherein it is so provided, their acts with respect to voting shall have the following effect: (a) if only one (1) votes, his act binds all; (b) if more than one (1) votes, the act of the majority so voting binds all; (c) if more than one (1) votes, but the vote is evenly split on any particular matter, each faction may vote the securities in question proportionally, or may apply to the Delaware Court of Chancery for relief as provided

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in the DGCL, Section 217(b). If the instrument filed with the Secretary shows that any such tenancy is held in unequal interests, a majority or even-split for the purpose of subsection (c) shall be a majority or even-split in interest.

Section 12. List of Stockholders. The Secretary shall prepare and make, at least ten (10) days before every meeting of stockholders, a complete list of the stockholders entitled to vote at said meeting, arranged in alphabetical order, showing the address of each stockholder and the number of shares registered in the name of each stockholder. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting, on a reasonably accessible electronic network, provided that the information required to gain access to such list is provided with the notice of the meeting, or during ordinary business hours, at the principal place of business of the corporation. In the event that the corporation determines to make the list available on an electronic network, the corporation may take reasonable steps to ensure that such information is available only to stockholders of the corporation. The list shall be open to examination of any stockholder during the time of the meeting as provided by law.

Section 13. Action Without Meeting.

(a) Unless otherwise provided in the Certificate of Incorporation, any action required by statute to be taken at any annual or special meeting of the stockholders, or any action which may be taken at any annual or special meeting of the stockholders, may be taken without a meeting, without prior notice and without a vote, if a consent in writing, or by electronic transmission setting forth the action so taken, shall be signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares entitled to vote thereon were present and voted.

(b) Every written consent or electronic transmission shall bear the date of signature of each stockholder who signs the consent, and no written consent or electronic transmission shall be effective to take the corporate action referred to therein unless, within sixty (60) days of the earliest dated consent delivered to the corporation in the manner herein required, written consents or electronic transmissions signed by a sufficient number of stockholders to take action are delivered to the corporation by delivery to its registered office in the State of Delaware, its principal place of business or an officer or agent of the corporation having custody of the book in which proceedings of meetings of stockholders are recorded. Delivery made to a corporation's registered office shall be by hand or by certified or registered mail, return receipt requested.

(c) Prompt notice of the taking of the corporate action without a meeting by less than unanimous written consent shall be given to those stockholders who have not consented in writing or by electronic transmission and who, if the action had been taken at a meeting, would have been

entitled to notice of the meeting if the record date for such meeting had been the date that written consents signed by a sufficient number of stockholders to take action were delivered to the corporation as provided in Section 228(c) of the DGCL. If the action which is consented to is such as would have required the filing of a certificate under any section of the DGCL if such action had been voted on by stockholders at a meeting thereof, then the certificate filed under such section shall state, in lieu of any statement required by such section concerning

any vote of stockholders, that written consent has been given in accordance with Section 228 of the DGCL.

(d) A telegram, cablegram or other electronic transmission consenting to an action to be taken and transmitted by a stockholder or proxyholder, shall be deemed to be written, signed and dated for the purposes of this section, provided that any such telegram, cablegram or other electronic transmission sets forth or is delivered with information from which the corporation can determine (i) that the telegram, cablegram or other electronic transmission was transmitted by the stockholder or proxyholder or by a person or persons authorized to act for the stockholder and (ii) the date on which such stockholder or proxyholder or authorized person or persons transmitted such telegram, cablegram or electronic transmission. The date on which such telegram, cablegram or electronic transmission is transmitted shall be deemed to be the date on which such consent was signed. No consent given by telegram, cablegram or other electronic transmission shall be deemed to have been delivered until such consent is reproduced in paper form and until such paper form shall be delivered to the corporation by delivery to its registered office in the state of Delaware, its principal place of business or an officer or agent of the corporation having custody of the book in which proceedings of meetings of stockholders are recorded. Delivery made to a corporation's registered office shall be made by hand or by certified or registered mail, return receipt requested. Notwithstanding the foregoing limitations on delivery, consents given by telegram, cablegram or other electronic transmission may be otherwise delivered to the principal place of business of the corporation or to an officer or agent of the corporation having custody of the book in which proceedings of meetings of stockholders are recorded if, to the extent and in the manner provided by resolution of the board of directors of the corporation. Any copy, facsimile or other reliable reproduction of a consent in writing may be substituted or used in lieu of the original writing for any and all purposes for which the original writing could be used, provided that such copy, facsimile or other reproduction shall be a complete reproduction of the entire original writing.

Section 14. Organization

(a) At every meeting of stockholders, the Chairman of the Board of Directors, or, if a Chairman has not been appointed or is absent, the President, or, if the President is absent, a chairman of the meeting chosen by a majority in interest of the stockholders entitled to vote, present in person or by proxy, shall act as chairman. The Secretary, or, in his absence, an Assistant Secretary directed to do so by the President, shall act as secretary of the meeting.

(b) The Board of Directors of the corporation shall be entitled to make such rules or regulations for the conduct of meetings of stockholders as it shall deem necessary, appropriate or convenient. Subject to such rules and regulations of the Board of Directors, if any, the chairman of the meeting shall have the right and authority to prescribe such rules, regulations and procedures and to do all such acts as, in the judgment of such chairman, are necessary, appropriate or convenient for the proper conduct of the meeting, including, without limitation, establishing an agenda or order of business for the meeting, rules and procedures for maintaining order at the meeting and the safety of those present, limitations on participation in such meeting to stockholders of record of the corporation and their duly authorized and constituted proxies and such other persons as the chairman shall permit, restrictions on entry to the meeting after the time fixed for the commencement thereof, limitations on the time allotted to

questions or comments by participants and regulation of the opening and closing of the polls for balloting on matters which are to be voted on by ballot. The date and time of the opening and closing of the polls for each matter upon which the stockholders will vote at the meeting shall be announced at the meeting. Unless and to the extent determined by the Board of Directors or the chairman of the meeting, meetings of stockholders shall not be required to be held in accordance with rules of parliamentary procedure.

ARTICLE IV

DIRECTORS

Section 15. Number and Term of Office. The authorized number of directors of the corporation shall be fixed by the Board of Directors from time to time. Directors need not be stockholders unless so required by the Certificate of Incorporation. If for any cause, the directors shall not have been elected at an annual meeting, they may be elected as soon thereafter as convenient.

Section 16. Powers. The powers of the corporation shall be exercised, its business conducted and its property controlled by the Board of Directors, except as may be otherwise provided by statute or by the Certificate of Incorporation.

Section 17. Term of Directors. Subject to the rights of the holders of any series of Preferred Stock to elect additional directors under specified circumstances, directors shall be elected at each annual meeting of stockholders for a term of one year. Each director shall serve until his successor is duly elected and qualified or until his death, resignation or removal. No decrease in the number of directors constituting the Board of Directors shall shorten the term of any incumbent director.

Section 18. Vacancies. Unless otherwise provided in the Certificate of Incorporation, and subject to the rights of the holders of any series of Preferred Stock, any vacancies on the Board of Directors resulting from death, resignation, disqualification, removal or other causes and any newly created directorships resulting from any increase in the number of directors shall, unless the Board of Directors determines by resolution that any such vacancies or newly created directorships shall be filled by stockholders, be filled only by the affirmative vote of a majority of the directors then in office, even though less than a quorum of the Board of Directors, or by a sole remaining director, *provided, however*, that whenever the holders of any class or classes of stock or series thereof are entitled to elect one or more directors by the provisions of the Certificate of Incorporation, vacancies and newly created directorships of such class or classes or series shall, unless the Board of Directors determines by resolution that any such vacancies or newly created directorships shall be filled by stockholders, be filled by a majority of the directors elected by such class or classes or series thereof then in office, or by a sole remaining director so elected. Any director elected in accordance with the preceding sentence shall hold office for the remainder of the full term of the director for which the

vacancy was created or occurred and until such director's successor shall have been elected and qualified. A vacancy in the Board of Directors shall be deemed to exist under this Bylaw in the case of the death, removal or resignation of any director.

Section 19. Resignation. Any director may resign at any time by delivering his or her notice in writing or by electronic transmission to the Secretary, such resignation to specify whether it will be effective at a particular time, upon receipt by the Secretary or at the pleasure of the Board of Directors. If no such specification is made, it shall be deemed effective at the pleasure of the Board of Directors. When one or more directors shall resign from the Board of Directors, effective at a future date, a majority of the directors then in office, including those who have so resigned, shall have power to fill such vacancy or vacancies, the vote thereon to take effect when such resignation or resignations shall become effective, and each Director so chosen shall hold office for the unexpired portion of the term of the Director whose place shall be vacated and until his successor shall have been duly elected and qualified.

Section 20. Removal. Subject to any limitations imposed by applicable law, the Board of Directors or any director may be removed from office at any time (i) with cause by the affirmative vote of the holders of a majority of the voting power of all then-outstanding shares of capital stock of the corporation entitled to vote generally at an election of directors or (ii) without cause by the affirmative vote of the holders of a majority of the voting power of all then-outstanding shares of capital stock of the corporation, entitled to vote generally at an election of directors.

Section 21. Meetings

(a) Regular Meetings. Unless otherwise restricted by the Certificate of Incorporation, regular meetings of the Board of Directors may be held at any time or date and at any place within or without the State of Delaware which has been designated by the Board of Directors and publicized among all directors, either orally or in writing, including a voice- messaging system or other system designated to record and communicate messages, facsimile, telegraph or telex, or by electronic mail or other electronic means. No further notice shall be required for a regular meeting of the Board of Directors.

(b) Special Meetings. Unless otherwise restricted by the Certificate of Incorporation, special meetings of the Board of Directors may be held at any time and place within or without the State of Delaware whenever called by the Chairman of the Board, the President or any director.

(c) Meetings by Electronic Communications Equipment. Any member of the Board of Directors, or of any committee thereof, may participate in a meeting by means of conference telephone or other communications equipment by means of which all persons participating in the meeting can hear each other, and participation in a meeting by such means shall constitute presence in person at such meeting.

(d) Notice of Special Meetings. Notice of the time and place of all special meetings of the Board of Directors shall be orally or in writing, by telephone, including a voice messaging system or other system or technology designed to record and communicate messages, facsimile, telegraph or telex, or by electronic mail or other electronic means, during normal business hours, at least twenty-four (24) hours before the date and time of the meeting. If notice is sent by US mail, it shall be sent by first class mail, postage prepaid at least three (3) days before the date of the meeting. Notice of any meeting may be waived in writing or by electronic

transmission at any time before or after the meeting and will be waived by any director by attendance thereat, except when the director attends the meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened.

(e) Waiver of Notice. The transaction of all business at any meeting of the Board of Directors, or any committee thereof, however called or noticed, or wherever held, shall be as valid as though had at a meeting duly held after regular call and notice, if a quorum be present and if, either before or after the meeting, each of the directors not present who did not receive notice shall sign a written waiver of notice or shall waive notice by electronic transmission. All such waivers shall be filed with the corporate records or made a part of the minutes of the meeting.

Section 22. Quorum and Voting.

(a) Unless the Certificate of Incorporation requires a greater number, a quorum of the Board of Directors shall consist of a majority of the exact number of directors fixed from time to time by the Board of Directors in accordance with the Certificate of Incorporation; *provided, however*, at any meeting, whether a quorum be present or otherwise, a majority of the directors present may adjourn from time to time until the time fixed for the next regular meeting of the Board of Directors, without notice other than by announcement at the meeting.

(b) At each meeting of the Board of Directors at which a quorum is present, all questions and business shall be determined by the affirmative vote of a majority of the directors present, unless a different vote be required by law, the Certificate of Incorporation or these Bylaws.

Section 23. Action Without Meeting. Unless otherwise restricted by the Certificate of Incorporation or these Bylaws, any action required or permitted to be taken at any meeting of the Board of Directors or of any committee thereof may be taken without a meeting, if all members of the Board of Directors or committee, as the case may be, consent thereto in writing or by electronic transmission, and such writing or writings or transmission or transmissions are filed with the minutes of proceedings of the Board of Directors or committee. Such filing shall be in paper form if the minutes are maintained in paper form and shall be in electronic form if the minutes are maintained in electronic form.

Section 24. Fees and Compensation. Directors shall be entitled to such compensation for their services as may be approved by the Board of Directors, including, if so approved, by resolution of the Board of Directors, a fixed sum and expenses of attendance, if any, for attendance at each regular or special meeting of the Board of Directors and at any meeting of a committee of the Board of Directors. Nothing herein contained shall be construed to preclude any director from serving the corporation in any other capacity as an officer, agent, employee, or otherwise and receiving compensation therefor.

Section 25. Committees.

(a) **Executive Committee.** The Board of Directors may appoint an Executive Committee to consist of one (1) or more members of the Board of Directors. The Executive Committee, to the extent permitted by law and provided in the resolution of the Board of Directors shall have and may exercise all the powers and authority of the Board of Directors in the management of the business and affairs of the corporation, and may authorize the seal of the corporation to be affixed to all papers which may require it; but no such committee shall have the power or authority in reference to (i) approving or adopting, or recommending to the stockholders, any action or matter expressly required by the DGCL to be submitted to stockholders for approval, or (ii) adopting, amending or repealing any bylaw of the corporation.

(b) **Other Committees.** The Board of Directors may, from time to time, appoint such other committees as may be permitted by law. Such other committees appointed by the Board of Directors shall consist of one (1) or more members of the Board of Directors and shall have such powers and perform such duties as may be prescribed by the resolution or resolutions creating such committees, but in no event shall any such committee have the powers denied to the Executive Committee in these Bylaws.

(c) **Term.** The Board of Directors, subject to any requirements of any outstanding series of Preferred Stock and the provisions of subsections (a) or (b) of this Bylaw may at any time increase or decrease the number of members of a committee or terminate the existence of a committee. The membership of a committee member shall terminate on the date of his death or voluntary resignation from the committee or from the Board of Directors. The Board of Directors may at any time for any reason remove any individual committee member and the Board of Directors may fill any committee vacancy created by death, resignation, removal or increase in the number of members of the committee. The Board of Directors may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee, and, in addition, in the absence or disqualification of any member of a committee, the member or members thereof present at any meeting and not disqualified from voting, whether or not he or they constitute a quorum, may unanimously appoint another member of the Board of Directors to act at the meeting in the place of any such absent or disqualified member.

(d) **Meetings.** Unless the Board of Directors shall otherwise provide, regular meetings of the Executive Committee or any other committee appointed pursuant to this Section 25 shall be held at such times and places as are determined by the Board of Directors, or by any such committee, and when notice thereof has been given to each member of such committee, no further notice of such regular meetings need be given thereafter. Special meetings of any such committee may be held at any place which has been determined from time to time by such committee, and may be called by any director who is a member of such committee, upon notice to the members of such committee of the time and place of such special meeting given in the manner provided for the giving of notice to members of the Board of Directors of the time and place of special meetings of the Board of Directors. Notice of any special meeting of any committee may be waived in writing at any time before or after the meeting and will be waived by any director by attendance thereat, except when the director attends such special meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Unless otherwise provided by the Board of Directors in the resolutions authorizing the creation of the committee, a majority of

the authorized number of members of any such committee shall constitute a quorum for the transaction of business, and the act of a majority of those present at any meeting at which a quorum is present shall be the act of such committee.

Section 26. Organization. At every meeting of the directors, the Chairman of the Board of Directors, or, if a Chairman has not been appointed or is absent, the President, or if the President is absent, the most senior Vice President, (if a director) or, in the absence of any such person, a chairman of the meeting chosen by a majority of the directors present, shall preside over the meeting. The Secretary, or in his absence, any Assistant Secretary directed to do so by the President, shall act as secretary of the meeting.

ARTICLE V

OFFICERS

Section 27. Officers Designated. The officers of the corporation shall include, if and when designated by the Board of Directors, the Chief Executive Officer, the President, one or more Vice Presidents, the Secretary, the Chief Operating Officer, the Chief Financial Officer, the Treasurer and the Controller, all of whom shall be elected at the annual organizational meeting of the Board of Directors. The Board of Directors may also appoint one or more Assistant Secretaries, Assistant Treasurers, Assistant Controllers and such other officers and agents with such powers and duties as it shall deem necessary. The Board of Directors may assign such additional titles to one or more of the officers as it shall deem appropriate. Any one person may hold any number of offices of the corporation at any one time unless specifically prohibited therefrom by law. The salaries and other compensation of the officers of the corporation shall be fixed by or in the manner designated by the Board of Directors.

Section 28. Tenure and Duties of Officers.

(a) **General.** All officers shall hold office at the pleasure of the Board of Directors and until their successors shall have been duly elected and qualified, unless sooner removed. Any officer elected or appointed by the Board of Directors may be removed at any time by the Board of Directors. If the office of any officer becomes vacant for any reason, the vacancy may be filled by the Board of Directors.

(b) **Duties of Chairman of the Board of Directors.** The Chairman of the Board of Directors, when present, shall preside at all meetings of the stockholders and the Board of Directors. The Chairman of the Board of Directors shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers as the Board of Directors shall designate from time to time. If there is no President, then the Chairman of the Board of Directors shall also serve as the Chief Executive Officer of the corporation and shall have the powers and duties prescribed in paragraph (c) of this Section 28.

(c) **Duties of President.** The President shall preside at all meetings of the stockholders and at all meetings of the Board of Directors, unless the Chairman of the Board of Directors has been appointed and is present. Unless some other officer has been elected Chief Executive Officer of the corporation, the President shall be the chief executive officer of the

corporation and shall, subject to the control of the Board of Directors, have general supervision, direction and control of the business and officers of the corporation. The President shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers as the Board of Directors shall designate from time to time.

(d) Duties of Vice Presidents. The Vice Presidents may assume and perform the duties of the President in the absence or disability of the President or whenever the office of President is vacant. The Vice Presidents shall perform other duties commonly incident to their office and shall also perform such other duties and have such other powers as the Board of Directors or the President shall designate from time to time.

(e) Duties of Secretary. The Secretary shall attend all meetings of the stockholders and of the Board of Directors and shall record all acts and proceedings thereof in the minute book of the corporation. The Secretary shall give notice in conformity with these Bylaws of all meetings of the stockholders and of all meetings of the Board of Directors and any committee thereof requiring notice. The Secretary shall perform all other duties provided for in these Bylaws and other duties commonly incident to the office and shall also perform such other duties and have such other powers as the Board of Directors shall designate from time to time. The President may direct any Assistant Secretary to assume and perform the duties of the Secretary in the absence or disability of the Secretary, and each Assistant Secretary shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers as the Board of Directors or the President shall designate from time to time.

(f) Duties of Chief Financial Officer. The Chief Financial Officer shall keep or cause to be kept the books of account of the corporation in a thorough and proper manner and shall render statements of the financial affairs of the corporation in such form and as often as required by the Board of Directors or the President. The Chief Financial Officer, subject to the order of the Board of Directors, shall have the custody of all funds and securities of the corporation. The Chief Financial Officer shall perform other duties commonly incident to his office and shall also perform such other duties and have such other powers as the Board of Directors or the President shall designate from time to time. The President may direct the Treasurer or any Assistant Treasurer, or the Controller or any Assistant Controller to assume and perform the duties of the Chief Financial Officer in the absence or disability of the Chief Financial Officer, and each Treasurer and Assistant Treasurer and each Controller and Assistant Controller shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers as the Board of Directors or the President shall designate from time to time.

Section 29. Delegation of Authority. The Board of Directors may from time to time delegate the powers or duties of any officer to any other officer or agent, notwithstanding any provision hereof.

Section 30. Resignations. Any officer may resign at any time by giving notice in writing or by electronic transmission notice to the Board of Directors or to the President or to the Secretary. Any such resignation shall be effective when received by the person or persons to whom such notice is given, unless a later time is specified therein, in which event the resignation shall become effective at such later time. Unless otherwise specified in such notice, the

acceptance of any such resignation shall not be necessary to make it effective. Any resignation shall be without prejudice to the rights, if any, of the corporation under any contract with the resigning officer.

Section 31. Removal. Any officer may be removed from office at any time, either with or without cause, by the affirmative vote of a majority of the directors in office at the time, or by the unanimous written consent of the directors in office at the time, or by any committee or superior officers upon whom such power of removal may have been conferred by the Board of Directors.

ARTICLE VI

EXECUTION OF CORPORATE INSTRUMENTS AND VOTING OF SECURITIES OWNED BY THE CORPORATION

Section 32. Execution of Corporate Instruments. The Board of Directors may, in its discretion, determine the method and designate the signatory officer or officers, or other person or persons, to execute on behalf of the corporation any corporate instrument or document, or to sign on behalf of the corporation the corporate name without limitation, or to enter into contracts on behalf of the corporation, except where otherwise provided by law or these Bylaws, and such execution or signature shall be binding upon the corporation.

All checks and drafts drawn on banks or other depositories on funds to the credit of the corporation or in special accounts of the corporation shall be signed by such person or persons as the Board of Directors shall authorize so to do.

Unless authorized or ratified by the Board of Directors or within the agency power of an officer, no officer, agent or employee shall have any power or authority to bind the corporation by any contract or engagement or to pledge its credit or to render it liable for any purpose or for any amount.

Section 33. Voting of Securities Owned by the Corporation. All stock and other securities of other corporations owned or held by the corporation for itself, or for other parties in any capacity, shall be voted, and all proxies with respect thereto shall be executed, by the person authorized so to do by resolution of the Board of Directors, or, in the absence of such authorization, by the Chairman of the Board of Directors, the Chief Executive Officer, the President, or any Vice President.

ARTICLE VII

SHARES OF STOCK

Section 34. Form and Execution of Certificates. The shares of the corporation shall be represented by certificates, or shall be uncertificated. Certificates for the shares of stock, if any, shall be in such form as is consistent with the Certificate of Incorporation and applicable law. Every holder of stock

Secretary or Assistant Secretary, certifying the number of shares owned by him in the corporation. Any or all of the signatures on the certificate may be facsimiles. In case any officer, transfer agent, or registrar who has signed or whose facsimile signature has been placed upon a certificate shall have ceased to be such officer, transfer agent, or registrar before such certificate is issued, it may be issued with the same effect as if he were such officer, transfer agent, or registrar at the date of issue.

Section 35. Lost Certificates. A new certificate or certificates shall be issued in place of any certificate or certificates theretofore issued by the corporation alleged to have been lost, stolen, or destroyed, upon the making of an affidavit of that fact by the person claiming the certificate of stock to be lost, stolen, or destroyed. The corporation may require, as a condition precedent to the issuance of a new certificate or certificates, the owner of such lost, stolen, or destroyed certificate or certificates, or the owner's legal representative, to agree to indemnify the corporation in such manner as it shall require or to give the corporation a surety bond in such form and amount as it may direct as indemnity against any claim that may be made against the corporation with respect to the certificate alleged to have been lost, stolen, or destroyed.

Section 36. Transfers.

(a) Transfers of record of shares of stock of the corporation shall be made only upon its books by the holders thereof, in person or by attorney duly authorized, and, in the case of stock represented by certificate, upon the surrender of a properly endorsed certificate or certificates for a like number of shares.

(b) The corporation shall have power to enter into and perform any agreement with any number of stockholders of any one or more classes of stock of the corporation to restrict the transfer of shares of stock of the corporation of any one or more classes owned by such stockholders in any manner not prohibited by the DGCL.

Section 37. Fixing Record Dates.

(a) In order that the corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof, the Board of Directors may fix, in advance, a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the Board of Directors, and which record date shall, subject to applicable law, not be more than sixty (60) nor less than ten (10) days before the date of such meeting. If no record date is fixed by the Board of Directors, the record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the day next preceding the day on which notice is given, or if notice is waived, at the close of business on the day next preceding the day on which the meeting is held. A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; *provided, however*, that the Board of Directors may fix a new record date for the adjourned meeting.

(b) In order that the corporation may determine the stockholders entitled to consent to corporate action in writing without a meeting, the Board of Directors may fix a record date, which record date shall not precede the date upon which the resolution fixing the record

date is adopted by the Board of Directors, and which date shall not be more than ten (10) days after the date upon which the resolution fixing the record date is adopted by the Board of Directors. Any stockholder of record seeking to have the stockholders authorize or take corporate action by written consent shall, by written notice to the Secretary, request the Board of Directors to fix a record date. The Board of Directors shall promptly, but in all events within ten (10) days after the date on which such a request is received, adopt a resolution fixing the record date. If no record date has been fixed by the Board of Directors within ten (10) days of the date on which such a request is received, the record date for determining stockholders entitled to consent to corporate action in writing without a meeting, when no prior action by the Board of Directors is required by applicable law, shall be the first date on which a signed written consent setting forth the action taken or proposed to be taken is delivered to the corporation by delivery to its registered office in the State of Delaware, its principal place of business or an officer or agent of the corporation having custody of the book in which proceedings of meetings of stockholders are recorded. Delivery made to the corporation's registered office shall be by hand or by certified or registered mail, return receipt requested. If no record date has been fixed by the Board of Directors and prior action by the Board of Directors is required by law, the record date for determining stockholders entitled to consent to corporate action in writing without a meeting shall be at the close of business on the day on which the Board of Directors adopts the resolution taking such prior action.

(c) In order that the corporation may determine the stockholders entitled to receive payment of any dividend or other distribution or allotment of any rights or the stockholders entitled to exercise any rights in respect of any change, conversion or exchange of stock, or for the purpose of any other lawful action, the Board of Directors may fix, in advance, a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted, and which record date shall be not more than sixty (60) days prior to such action. If no record date is fixed, the record date for determining stockholders for any such purpose shall be at the close of business on the day on which the Board of Directors adopts the resolution relating thereto.

Section 38. Registered Stockholders. The corporation shall be entitled to recognize the exclusive right of a person registered on its books as the owner of shares to receive dividends, and to vote as such owner, and shall not be bound to recognize any equitable or other claim to or interest in such share or shares on the part of any other person whether or not it shall have express or other notice thereof, except as otherwise provided by the laws of Delaware.

ARTICLE VIII

OTHER SECURITIES OF THE CORPORATION

Section 39. Execution of Other Securities. All bonds, debentures and other corporate securities of the corporation, other than stock certificates (covered in Section 34), may be signed by the Chairman of the Board of Directors, the President or any Vice President, or such other person as may be authorized by the Board of Directors, and the corporate seal impressed thereon or a facsimile of such seal imprinted thereon and attested by the signature of the Secretary or an Assistant Secretary, or the Chief Financial Officer or Treasurer or an Assistant Treasurer; *provided, however*, that where any such bond, debenture or other corporate

security shall be authenticated by the manual signature, or where permissible facsimile signature, of a trustee under an indenture pursuant to which such bond, debenture or other corporate security shall be issued, the signatures of the persons signing and attesting the corporate seal on such bond, debenture or other corporate security may be the imprinted facsimile of the signatures of such persons. Interest coupons appertaining to any such bond, debenture or other corporate security, authenticated by a trustee as aforesaid, shall be signed by the Treasurer or an Assistant Treasurer of the corporation or such other person as may be authorized by the Board of Directors, or bear imprinted thereon the facsimile signature of such person. In case any officer who shall have signed or attested any bond, debenture or other corporate security, or whose facsimile signature shall appear thereon or on any such interest coupon, shall have ceased to be such officer before the bond, debenture or other corporate security so signed or attested shall have been delivered, such bond, debenture or other corporate security nevertheless may be adopted by the corporation and issued and delivered as though the person who signed the same or whose facsimile signature shall have been used thereon had not ceased to be such officer of the corporation.

ARTICLE IX

DIVIDENDS

Section 40. Declaration of Dividends. Dividends upon the capital stock of the corporation, subject to the provisions of the Certificate of Incorporation and applicable law, if any, may be declared by the Board of Directors pursuant to law at any regular or special meeting. Dividends may be paid in cash, in property, or in shares of the capital stock, subject to the provisions of the Certificate of Incorporation and applicable law.

Section 41. Dividend Reserve. Before payment of any dividend, there may be set aside out of any funds of the corporation available for dividends such sum or sums as the Board of Directors from time to time, in their absolute discretion, think proper as a reserve or reserves to meet contingencies, or for equalizing dividends, or for repairing or maintaining any property of the corporation, or for such other purpose as the Board of Directors shall think conducive to the interests of the corporation, and the Board of Directors may modify or abolish any such reserve in the manner in which it was created.

ARTICLE X

FISCAL YEAR

Section 42. Fiscal Year. The fiscal year of the corporation shall be fixed by resolution of the Board of Directors.

ARTICLE XI

INDEMNIFICATION

Section 43. Indemnification of Directors and Executive Officers.

(a) **Directors and Executive Officers.** The corporation shall indemnify its directors and executive officers (for the purposes of this Article XI, "executive officers" shall have the meaning defined in Rule 3b-7 promulgated under the 1934 Act) to the fullest extent not prohibited by the DGCL or any other applicable law; *provided, however*, that the corporation may modify the extent of such indemnification by individual contracts with its directors and executive officers; and, *provided, further*, that the corporation shall not be required to indemnify any director or executive officer in connection with any proceeding (or part thereof) initiated by such person unless (i) such indemnification is expressly required to be made by law, (ii) the proceeding was authorized by the Board of Directors of the corporation, (iii) such indemnification is provided by the corporation, in its sole discretion, pursuant to the powers vested in the corporation under the DGCL or any other applicable law or (iv) such indemnification is required to be made under subsection (d).

(b) **Other Officers, Employees and Other Agents.** In the discretion of the Board of Directors, the corporation shall have power to indemnify its other officers, employees and other agents as set forth in the DGCL or any other applicable law. The Board of Directors shall have the power to delegate the determination of whether indemnification shall be given to any such person to such officers or other persons as the Board of Directors shall determine.

(c) **Expenses.**

(1) The corporation shall advance to any director who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that he is or was a director or executive officer, of the corporation, or is or was serving at the request of the corporation as a director of another corporation, partnership, joint venture, trust or other enterprise, prior to the final disposition of the proceeding, promptly following request therefor, all expenses incurred by any director in connection with such proceeding, provided, however, that, if the DGCL requires, an advancement of expenses incurred by a director in his or her capacity as a director (and not in any other capacity in which service was or is rendered by such indemnitee, including, without limitation, service to an employee benefit plan) shall be made only upon delivery to the corporation of an undertaking, by or on behalf of such indemnitee, to repay all amounts so advanced if it shall ultimately be determined by final judicial decision from which there is no further right to appeal that such indemnitee is not entitled to be indemnified for such expenses under this Section 43 or otherwise.

(2) The Corporation may, at the discretion of the Board of Directors of the Corporation, advance to any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or

investigative, by reason of the fact that he is or was an executive officer, of the corporation, or is or was serving at the request of the corporation as an executive officer of another corporation, partnership, joint venture, trust or other enterprise, prior to the final disposition of the proceeding, promptly following request therefor; all expenses incurred by any executive officer in connection with such proceeding, provided, however, that, if the DGCL requires, an advancement of expenses incurred by an officer in his or her capacity as an officer (and not in any other capacity in which service was or is rendered by such indemnitee, including, without limitation, service to an employee benefit plan) shall be made only upon delivery to the

corporation of an undertaking, by or on behalf of such indemnitee, to repay all amounts so advanced if it shall ultimately be determined by final judicial decision from which there is no further right to appeal that such indemnitee is not entitled to be indemnified for such expenses under this Section 43 or otherwise.

(3) Notwithstanding the foregoing, unless otherwise determined pursuant to paragraph (e) of this Bylaw, no advance shall be made by the corporation to an executive officer of the corporation (except by reason of the fact that such executive officer is or was a director of the corporation, in which event this paragraph shall not apply) in any action, suit or proceeding, whether civil, criminal, administrative or investigative, if a determination is reasonably and promptly made (i) by a majority vote of a quorum consisting of directors who were not parties to the proceeding, even if not a quorum, or (ii) by a committee of such directors designated by a majority of such directors, even though less than a quorum, or (iii) if there are no such directors, or such directors so direct, by independent legal counsel in a written opinion, that the facts known to the decision-making party at the time such determination is made demonstrate clearly and convincingly that such person acted in bad faith or in a manner that such person did not believe to be in the best interests of the corporation.

(d) **Enforcement.** Without the necessity of entering into an express contract, all rights to indemnification and advances to directors and executive officers under this Bylaw shall be deemed to be contractual rights and be effective to the same extent and as if provided for in a contract between the corporation and the director or executive officer. Any right to indemnification or advances granted by this Bylaw to a director or executive officer shall be enforceable by or on behalf of the person holding such right in any court of competent jurisdiction if (i) the claim for indemnification or advances is denied, in whole or in part, or (ii) no disposition of such claim is made within ninety (90) days of request therefor. The claimant in such enforcement action, if successful in whole or in part, shall be entitled to be paid also the expense of prosecuting the claim. In connection with any claim for indemnification, the corporation shall be entitled to raise as a defense to any such action that the claimant has not met the standards of conduct that make it permissible under the DGCL or any other applicable law for the corporation to indemnify the claimant for the amount claimed. In connection with any claim by an executive officer of the corporation (except in any action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that such executive officer is or was a director of the corporation) for advances, the corporation shall be entitled to raise as a defense as to any such action clear and convincing evidence that such person acted in bad faith or in a manner that such person did not believe to be in the best interests of the corporation, or with respect to any criminal action or proceeding that such person acted without reasonable cause to believe that his conduct was lawful. Neither the failure of the corporation (including its Board of Directors, independent legal counsel or its stockholders) to have made a determination prior to the commencement of such action that indemnification of the claimant is proper in the circumstances because he has met the applicable standard of conduct set forth in the DGCL or any other applicable law, nor an actual determination by the corporation (including its Board of Directors, independent legal counsel or its stockholders) that the claimant has not met such applicable standard of conduct, shall be a defense to the action or create a presumption that claimant has not met the applicable standard of conduct.

(e) **Non-Exclusivity of Rights.** The rights conferred on any person by this Bylaw shall not be exclusive of any other right which such person may have or hereafter acquire under any applicable statute, provision of the Certificate of Incorporation, Bylaws, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in his official capacity and as to action in another capacity while holding office. The corporation is specifically authorized to enter into individual contracts with any or all of its directors, officers, employees or agents respecting indemnification and advances, to the fullest extent not prohibited by the DGCL or any other applicable law.

(f) **Survival of Rights.** The rights conferred on any person by this Bylaw shall continue as to a person who has ceased to be a director or executive officer and shall inure to the benefit of the heirs, executors and administrators of such a person.

(g) **Insurance.** To the fullest extent permitted by the DGCL, or any other applicable law, the corporation, upon approval by the Board of Directors, may purchase insurance on behalf of any person required or permitted to be indemnified pursuant to this Bylaw.

(h) **Amendments.** Any repeal or modification of this Bylaw shall only be prospective and shall not affect the rights under this Bylaw in effect at the time of the alleged occurrence of any action or omission to act that is the cause of any proceeding against any agent of the corporation.

(i) **Saving Clause.** If this Bylaw or any portion hereof shall be invalidated on any ground by any court of competent jurisdiction, then the corporation shall nevertheless indemnify each director and executive officer to the full extent not prohibited by any applicable portion of this Bylaw that shall not have been invalidated, or by any other applicable law. If this Section 43 shall be invalid due to the application of the indemnification provisions of another jurisdiction, then the corporation shall indemnify each director and executive officer to the full extent under applicable law.

(j) **Certain Definitions.** For the purposes of this Bylaw, the following definitions shall apply:

(1) The term "proceeding" shall be broadly construed and shall include, without limitation, the investigation, preparation, prosecution, defense, settlement, arbitration and appeal of, and the giving of testimony in, any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative.

(2) The term "expenses" shall be broadly construed and shall include, without limitation, court costs, attorneys' fees, witness fees, fines, amounts paid in settlement or judgment and any other costs and expenses of any nature or kind incurred in connection with any proceeding.

(3) The term the "corporation" shall include, in addition to the resulting corporation, any constituent corporation (including any constituent of a constituent) absorbed in a consolidation or merger which, if its separate existence had continued, would have had power and authority to

person who is or was a director, officer, employee or agent of such constituent corporation, or is or was serving at the request of such constituent corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, shall stand in the same position under the provisions of this Bylaw with respect to the resulting or surviving corporation as he would have with respect to such constituent corporation if its separate existence had continued.

(4) References to a “director,” “executive officer,” “officer,” “employee,” or “agent” of the corporation shall include, without limitation, situations where such person is serving at the request of the corporation as, respectively, a director, executive officer, officer, employee, trustee or agent of another corporation, partnership, joint venture, trust or other enterprise.

(5) References to “other enterprises” shall include employee benefit plans; references to “fines” shall include any excise taxes assessed on a person with respect to an employee benefit plan; and references to “serving at the request of the corporation” shall include any service as a director, officer, employee or agent of the corporation which imposes duties on, or involves services by, such director, officer, employee, or agent with respect to an employee benefit plan, its participants, or beneficiaries; and a person who acted in good faith and in a manner he reasonably believed to be in the interest of the participants and beneficiaries of an employee benefit plan shall be deemed to have acted in a manner “not opposed to the best interests of the corporation” as referred to in this Bylaw.

ARTICLE XII

NOTICES

Section 44. Notices.

(a) **Notice to Stockholders.** Written notice to stockholders of stockholder meetings shall be given as provided in Section 7 herein. Without limiting the manner by which notice may otherwise be given effectively to stockholders under any agreement or contract with such stockholder, and except as otherwise required by law, written notice to stockholders for purposes other than stockholder meetings may be sent by United States mail or nationally recognized overnight courier, or by facsimile, telegraph or telex or by electronic mail or other electronic means.

(b) **Notice to Directors.** Any notice required to be given to any director may be given by the method stated in subsection (a), or as provided for in Section 21 of these Bylaws. If such notice is not delivered personally, it shall be sent to such address as such director shall have filed in writing with the Secretary, or, in the absence of such filing, to the last known post office address of such director.

(c) **Affidavit of Mailing.** An affidavit of mailing, executed by a duly authorized and competent employee of the corporation or its transfer agent appointed with respect to the class of stock affected or other agent, specifying the name and address or the names and addresses of the stockholder or stockholders, or director or directors, to whom any

such notice or notices was or were given, and the time and method of giving the same, shall in the absence of fraud, be prima facie evidence of the facts therein contained.

(d) **Methods of Notice.** It shall not be necessary that the same method of giving notice be employed in respect of all recipients of notice, but one permissible method may be employed in respect of any one or more, and any other permissible method or methods may be employed in respect of any other or others.

(e) **Notice to Person with Whom Communication Is Unlawful.** Whenever notice is required to be given, under any provision of law or of the Certificate of Incorporation or Bylaws of the corporation, to any person with whom communication is unlawful, the giving of such notice to such person shall not be required and there shall be no duty to apply to any governmental authority or agency for a license or permit to give such notice to such person. Any action or meeting which shall be taken or held without notice to any such person with whom communication is unlawful shall have the same force and effect as if such notice had been duly given. In the event that the action taken by the corporation is such as to require the filing of a certificate under any provision of the DGCL, the certificate shall state, if such is the fact and if notice is required, that notice was given to all persons entitled to receive notice except such persons with whom communication is unlawful.

(f) **Notice to Stockholders Sharing an Address.** Except as otherwise prohibited under DGCL, any notice given under the provisions of DGCL, the Certificate of Incorporation or the Bylaws shall be effective if given by a single written notice to stockholders who share an address if consented to by the stockholders at that address to whom such notice is given. Such consent shall have been deemed to have been given if such stockholder fails to object in writing to the corporation within 60 days of having been given notice by the corporation of its intention to send the single notice. Any consent shall be revocable by the stockholder by written notice to the corporation.

ARTICLE XIII

AMENDMENTS

Section 45. Amendments. The Board of Directors is expressly empowered to adopt, amend or repeal Bylaws of the corporation. The stockholders shall also have power to adopt, amend or repeal the Bylaws of the corporation; provided, however, that, in addition to any vote of the holders of any class or series of stock of the corporation required by law or by the Certificate of Incorporation, such action by stockholders shall require the affirmative vote of the holders of at least a majority of the voting power of all of the then-outstanding shares of the capital stock of the corporation entitled to vote generally in the election of directors, voting together as a single class.

ARTICLE XIV**LOANS TO OFFICERS**

Section 46. Loans to Officers. Except as otherwise prohibited under applicable law, the corporation may lend money to, or guarantee any obligation of, or otherwise assist any officer or other employee of the corporation or of its subsidiaries, including any officer or employee who is a Director of the corporation or its subsidiaries, whenever, in the judgment of the Board of Directors, such loan, guarantee or assistance may reasonably be expected to benefit the corporation. The loan, guarantee or other assistance may be with or without interest and may be unsecured, or secured in such manner as the Board of Directors shall approve, including, without limitation, a pledge of shares of stock of the corporation. Nothing in these Bylaws shall be deemed to deny, limit or restrict the powers of guaranty or warranty of the corporation at common law or under any statute.

SECOND AMENDED AND RESTATED INVESTORS' RIGHTS AGREEMENT

This **SECOND AMENDED AND RESTATED INVESTORS' RIGHTS AGREEMENT** (this "**Agreement**") is made as of the 1st day November, 2011, by and among **VERASTEM, INC.**, a Delaware corporation (the "**Company**"), each of the investors listed on Schedule A hereto, each of which is referred to in this Agreement as an "**Investor**," and each of the stockholders listed on Schedule B hereto, each of whom is referred to in this Agreement as a "**Key Holder**".

RECITALS

WHEREAS, the Company, certain of the Investors and the Key Holders are parties to an Amended and Restated Investors' Rights Agreement dated as of July 12, 2011 (the "**Prior Agreement**");

WHEREAS, concurrently with the execution of this Agreement, the Company and the Investors are entering into a Series C Preferred Stock Purchase Agreement (as amended and/or restated from time to time, the "**Purchase Agreement**") providing for the sale of shares of the Series C Preferred Stock, \$.0001 par value per share, of the Company (the "**Series C Preferred Stock**"), and in connection with that agreement it is a condition to the purchase of such Series C Preferred Stock that the Company, the Investors and the Key Holders enter into this Agreement;

WHEREAS, the Investors and the Company hereby agree that this Agreement shall govern the rights of the Investors to cause the Company to register shares of Common Stock issuable to the Investors, to receive certain information from the Company, and to participate in future equity offerings by the Company, and shall govern certain other matters as set forth in this Agreement; and

WHEREAS, the (i) Company, (ii) the holders of at least sixty percent (60%) of the shares of Common Stock issued or issuable upon conversion of the shares of Preferred Stock (as defined in the Prior Agreement) held by the Investors (voting as a single class and on an as-converted basis) and (iii) the Key Holders (as defined in the Prior Agreement) holding at least two-thirds of the Common Stock then held by the Key Holders who are providing services to the Company as officers, employees or consultants have executed this Agreement in order to amend and restate the Prior Agreement and to accept the rights created pursuant hereto in lieu of the rights granted to them under the Prior Agreement;

NOW, THEREFORE, in consideration of the mutual promises and covenants set forth herein, the parties hereto hereby agree that the Prior Agreement shall be amended and restated, and the parties hereto further agree as follows:

1. **Definitions.** For purposes of this Agreement:

1.1 "**Affiliate**" means, with respect to any specified Person, any other Person who, directly or indirectly, controls, is controlled by, or is under common control with such Person, including without limitation any stockholder, general partner, managing member, officer

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or director of such Person, or any venture capital fund or registered investment company now or hereafter existing that is controlled by or under common control with one or more general partners or managing members of, or shares the same management company or investment advisor with, such Person.

1.2 "**Common Stock**" means shares of common stock, \$.0001 par value per share, of the Company.

1.3 "**Damages**" means any loss, damage, or liability (joint or several) to which a party hereto may become subject under the Securities Act, the Exchange Act, or other federal or state law, insofar as such loss, damage, or liability (or any action in respect thereof) arises out of or is based upon (i) any untrue statement or alleged untrue statement of a material fact contained in any registration statement of the Company, including any preliminary prospectus or final prospectus contained therein or any amendments or supplements thereto; (ii) an omission or alleged omission to state therein a material fact required to be stated therein, or necessary to make the statements therein not misleading; or (iii) any violation or alleged violation by the indemnifying party (or any of its agents or Affiliates) of the Securities Act, the Exchange Act, any state securities law, or any rule or regulation promulgated under the Securities Act, the Exchange Act, or any state securities law.

1.4 "**Derivative Securities**" means any securities or rights convertible into, or exercisable or exchangeable for (in each case, directly or indirectly), Common Stock, including options, warrants and Preferred Stock.

1.5 "**Exchange Act**" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

1.6 "**Excluded Registration**" means (i) a registration relating to the sale of securities to employees of the Company or a subsidiary pursuant to a stock option, stock purchase, or similar plan; (ii) a registration relating to an SEC Rule 145 transaction; (iii) a registration on any form that does not include substantially the same information as would be required to be included in a registration statement covering the sale of the Registrable Securities; or (iv) a registration in which the only Common Stock being registered is Common Stock issuable upon conversion of debt securities that are also being registered.

1.7 "**Form S-1**" means such form under the Securities Act as in effect on the date hereof or any successor registration form under the Securities Act subsequently adopted by the SEC.

1.8 "**Form S-3**" means such form under the Securities Act as in effect on the date hereof or any registration form under the Securities Act subsequently adopted by the SEC that permits incorporation of substantial information by reference to other documents filed by the Company with the SEC.

1.9 "**Founders**" means Christoph Westphal, Rich Aldrich, Michelle Dipp, Satish Jindal, Piyush Gupta and Robert Weinberg.

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1.10 “GAAP” means generally accepted accounting principles in the United States.

1.11 “Holder” means any holder of Registrable Securities who is a party to this Agreement.

1.12 “Immediate Family Member” means a child, stepchild, grandchild, parent, stepparent, grandparent, spouse, sibling, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother-in-law, or sister-in-law, including adoptive relationships, of a natural person referred to herein.

1.13 “Initiating Holders” means, collectively, Holders who properly initiate a registration request under this Agreement.

1.14 “IPO” means the Company’s first underwritten public offering of its Common Stock under the Securities Act.

1.15 “Key Employee” means any executive-level employee (including vice president-level positions) as well as any employee who, either alone or in concert with others, develops, invents, programs, or designs any Company Intellectual Property (as defined in the Purchase Agreement) or any other employee deemed to be a Key Employee by the Company’s Board of Directors or Compensation Committee.

1.16 “Key Holder Registrable Securities” means (i) the shares of Common Stock held by the Key Holders, and (ii) any Common Stock issued as (or issuable upon the conversion or exercise of any Derivative Security that is issued as) a dividend or other distribution with respect to, or in exchange for or in replacement of such shares.

1.17 “Major Investor” means (i) any Investor that, individually or together with such Investor’s Affiliates, holds at least twenty percent (20%) of the Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock originally purchased by such Investor and (ii) any transferee of shares of Series A Preferred, Series B Preferred Stock and/or Series C Preferred Stock of any Investor, as the case may be, if such transferee is an Affiliate of such Investor and such transferee, individually or together with its Affiliates, holds at least twenty percent (20%) of the Series A Preferred Stock, Series B Preferred Stock and/or Series C Preferred Stock, as the case may be, originally purchased by such Investor.

1.18 “New Securities” means, collectively, equity securities of the Company, whether or not currently authorized, as well as rights, options, or warrants to purchase such equity securities, or securities of any type whatsoever that are, or may become, convertible or exchangeable into or exercisable for such equity securities.

1.19 “Person” means any individual, corporation, partnership, trust, foundation, limited liability company, association or other entity.

1.20 “Preferred Stock” means collectively, the Series A Preferred Stock, the Series B Preferred Stock and the Series C Preferred Stock.

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1.21 “Registrable Securities” means (i) the Common Stock issuable or issued upon conversion of the Preferred Stock, excluding any Common Stock issued upon conversion of the Preferred Stock pursuant to the “Special Mandatory Conversion” provisions of the Company’s Certificate of Incorporation (as amended and/or restated from time to time); (ii) any Common Stock, or any Common Stock issued or issuable (directly or indirectly) upon conversion and/or exercise of any other securities of the Company, acquired by the Investors after the date hereof; (iii) the Key Holder Registrable Securities, provided, however, that such Key Holder Registrable Securities shall not be deemed Registrable Securities and the Key Holders shall not be deemed Holders for the purposes of Sections 2.1 and 2.10; and (iv) any Common Stock issued as (or issuable upon the conversion or exercise of any Derivative Security that is issued as) a dividend or other distribution with respect to, or in exchange for or in replacement of, the shares referenced in clauses (i) and (ii) above; excluding in all cases, however, any Registrable Securities sold by a Person in a transaction in which the applicable rights under this Agreement are not assigned pursuant to Section 6.1, and excluding for purposes of Section 2 any shares for which registration rights have terminated pursuant to Section 2.13 of this Agreement.

1.22 “Registrable Securities then outstanding” means the number of shares determined by adding the number of shares of outstanding Common Stock that are Registrable Securities and the number of shares of Common Stock issuable (directly or indirectly) pursuant to Derivative Securities that are Registrable Securities.

1.23 “Restricted Securities” means the securities of the Company required to bear the legend set forth in Section 2.12(b) hereof.

1.24 “SEC” means the Securities and Exchange Commission.

1.25 “SEC Rule 144” means Rule 144 promulgated by the SEC under the Securities Act.

1.26 “SEC Rule 145” means Rule 145 promulgated by the SEC under the Securities Act.

1.27 “Securities Act” means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

1.28 “Selling Expenses” means all underwriting discounts, selling commissions, and stock transfer taxes applicable to the sale of Registrable Securities, and fees and disbursements of counsel for any Holder, except for the fees and disbursements of the Selling Holder Counsel borne and paid by the Company as provided in Section 2.6.

1.29 “Series A Directors” means the directors of the Company that the holders of record of Series A Preferred Stock are entitled to elect exclusively and as a separate class pursuant to the Company’s Certificate of Incorporation (as amended and/or restated from time to time).

1.30 “Series A Preferred Stock” means the Series A Preferred Stock, \$.0001 par value per share, of the Company.

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1.31 “**Series B Preferred Stock**” means the Series B Preferred Stock, \$.0001 par value per share, of the Company.

1.32 “**Qualified Public Offering**” means a Qualified Public Offering, as defined in the Company’s Certificate of Incorporation, as amended and/or restated from time to time.

1.33 “**Voting Agreement**” means that certain Second Amended and Restated Voting Agreement, by and among the Company and the other parties thereto, dated as of even date hereof.

2. Registration Rights. The Company covenants and agrees as follows:

2.1 Demand Registration.

(a) Form S-1 Demand. If at any time after the earlier of (i) three (3) years after the date of this Agreement or (ii) one hundred eighty (180) days after the effective date of the registration statement for the IPO, the Company receives a request from Holders of at least a majority of the Registrable Securities then outstanding (or a lesser percent if the anticipated aggregate offering price, net of Selling Expenses, would exceed \$5 million), then the Company shall (i) within ten (10) days after the date such request is given, give notice thereof (the “**Demand Notice**”) to all Holders other than the Initiating Holders; and (ii) as soon as practicable, and in any event within sixty (60) days after the date such request is given by the Initiating Holders, file a Form S-1 registration statement under the Securities Act covering all Registrable Securities that the Initiating Holders requested to be registered and any additional Registrable Securities requested to be included in such registration by any other Holders, as specified by notice given by each such Holder to the Company within twenty (20) days after the date the Demand Notice is given, and in each case, subject to the limitations of Section 2.1(c) and Section 2.3.

(b) Form S-3 Demand. If at any time when it is eligible to use a Form S-3 registration statement, the Company receives a request from Holders of at least thirty percent (30%) of the Registrable Securities then outstanding that the Company file a Form S-3 registration statement with respect to outstanding Registrable Securities of such Holders having an anticipated aggregate offering price, net of Selling Expenses, of at least \$1 million, then the Company shall (i) within ten (10) days after the date such request is given, give a Demand Notice to all Holders other than the Initiating Holders; and (ii) as soon as practicable, and in any event within forty-five (45) days after the date such request is given by the Initiating Holders, file a Form S-3 registration statement under the Securities Act covering all Registrable Securities that the Initiating Holders requested to be registered and any additional Registrable Securities requested to be included in such registration by any other Holders, as specified by notice given by each such Holder to the Company within twenty (20) days after the date the Demand Notice is given, and in each case, subject to the limitations of Section 2.1(c) and Section 2.3.

(c) Notwithstanding the foregoing obligations, if the Company furnishes to Holders requesting a registration pursuant to this Section 2.1 a certificate signed by the Company’s chief executive officer stating that in the good faith judgment of the Company’s

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Board of Directors (the “**Board of Directors**”) it would be materially detrimental to the Company and its stockholders for such registration statement to either become effective or remain effective for as long as such registration statement otherwise would be required to remain effective, because such action would: (i) materially interfere with a significant acquisition, corporate reorganization, or other similar transaction involving the Company; (ii) require premature disclosure of material information that the Company has a bona fide business purpose for preserving as confidential; or (iii) render the Company unable to comply with requirements under the Securities Act or Exchange Act, then the Company shall have the right to defer taking action with respect to such filing, and any time periods with respect to filing or effectiveness thereof shall be tolled correspondingly, for a period of not more than thirty (30) days after the request of the Initiating Holders is given; provided, however, that the Company may not invoke this right more than once in any twelve (12) month period; and provided further that the Company shall not register any securities for its own account or that of any other stockholder during such thirty (30) day period other than pursuant to a registration relating to the sale of securities to employees of the Company or a subsidiary pursuant to a stock option, stock purchase, or similar plan; a registration on any form that does not include substantially the same information as would be required to be included in a registration statement covering the sale of the Registrable Securities; or a registration in which the only Common Stock being registered is Common Stock issuable upon conversion of debt securities that are also being registered.

(d) The Company shall not be obligated to effect, or to take any action to effect, any registration pursuant to Section 2.1(a): (i) during the period that is sixty (60) days before the Company’s good faith estimate of the date of filing of, and ending on a date that is one hundred eighty (180) days after the effective date of, a Company-initiated registration, provided, that the Company is actively employing in good faith commercially reasonable efforts to cause such registration statement to become effective; (ii) after the Company has effected two registrations pursuant to Section 2.1(a); or (iii) if the Initiating Holders propose to dispose of shares of Registrable Securities that may be immediately registered on Form S-3 pursuant to a request made pursuant to Section 2.1(b). The Company shall not be obligated to effect, or to take any action to effect, any registration pursuant to Section 2.1(b): (i) during the period that is thirty (30) days before the Company’s good faith estimate of the date of filing of, and ending on a date that is ninety (90) days after the effective date of, a Company-initiated registration, provided, that the Company is actively employing in good faith commercially reasonable efforts to cause such registration statement to become effective; or (ii) if the Company has effected two registrations pursuant to Section 2.1(b) within the twelve (12) month period immediately preceding the date of such request. A registration shall not be counted as “effected” for purposes of this Section 2.1(d) until such time as the applicable registration statement has been declared effective by the SEC, unless the Initiating Holders withdraw their request for such registration (other than as a result of a material adverse change to the Company), elect not to pay the registration expenses therefor and, as a result, forfeit their right to one demand registration statement pursuant to Section 2.6, in which case such withdrawn registration statement shall be counted as “effected” for purposes of this Section 2.1(d).

2.2 Company Registration. If the Company proposes to register (including, for this purpose, a registration effected by the Company for stockholders other than the Holders) any of its Common Stock under the Securities Act in connection with the public offering of such securities solely for cash (other than an Excluded Registration), the Company shall, at such time,

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promptly give each Holder notice of such registration. Upon the request of each Holder given within twenty (20) days after such notice is given by the Company, the Company shall, subject to the provisions of Section 2.3, cause to be registered all of the Registrable Securities that each such Holder has requested to be included in such registration. The Company shall have the right to terminate or withdraw any registration initiated by it under this Section 2.2 before the effective date of such registration, whether or not any Holder has elected to include Registrable Securities in such registration. The expenses (other than Selling Expenses) of such withdrawn registration shall be borne by the Company in accordance with Section 2.6.

2.3 Underwriting Requirements.

(a) If, pursuant to Section 2.1, the Initiating Holders intend to distribute the Registrable Securities covered by their request by means of an underwriting, they shall so advise the Company as a part of their request made pursuant to Section 2.1, and the Company shall include such information in the Demand Notice. The underwriter(s) will be selected by the Company and shall be reasonably acceptable to a majority in interest of the Initiating Holders. In such event, the right of any Holder to include such Holder's Registrable Securities in such registration shall be conditioned upon such Holder's participation in such underwriting and the inclusion of such Holder's Registrable Securities in the underwriting to the extent provided herein. All Holders proposing to distribute their securities through such underwriting shall (together with the Company as provided in Section 2.4(e)) enter into an underwriting agreement in customary form with the underwriter(s) selected for such underwriting. Notwithstanding any other provision of this Section 2.3, if the underwriter(s) advise(s) the Initiating Holders in writing that marketing factors require a limitation on the number of shares to be underwritten, then the Initiating Holders shall so advise all Holders of Registrable Securities that otherwise would be underwritten pursuant hereto, and the number of Registrable Securities that may be included in the underwriting shall be allocated among such Holders of Registrable Securities, including the Initiating Holders, in proportion (as nearly as practicable) to the number of Registrable Securities owned by each Holder or in such other proportion as shall mutually be agreed to by all such selling Holders; provided, however, that the number of Registrable Securities held by the Holders to be included in such underwriting shall not be reduced unless all other securities are first entirely excluded from the underwriting; and provided, further, that any Registrable Securities which are not Key Holder Registrable Securities shall not be excluded from such underwriting unless all Key Holder Registrable Securities are first excluded from such offering. To facilitate the allocation of shares in accordance with the above provisions, the Company or the underwriters may round the number of shares allocated to any Holder to the nearest 100 shares.

(b) In connection with any offering involving an underwriting of shares of the Company's capital stock pursuant to Section 2.2, the Company shall not be required to include any of the Holders' Registrable Securities in such underwriting unless the Holders accept the terms of the underwriting as agreed upon between the Company and its underwriters, and then only in such quantity as the underwriters in their sole discretion determine will not jeopardize the success of the offering by the Company. If the total number of securities, including Registrable Securities, requested by stockholders to be included in such offering exceeds the number of securities to be sold (other than by the Company) that the underwriters in their reasonable discretion determine is compatible with the success of the offering, then the

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Company shall be required to include in the offering only that number of such securities, including Registrable Securities, which the underwriters and the Company in their sole discretion determine will not jeopardize the success of the offering. If the underwriters determine that less than all of the Registrable Securities requested to be registered can be included in such offering, then the Registrable Securities that are included in such offering shall be allocated among the selling Holders in proportion (as nearly as practicable to) the number of Registrable Securities owned by each selling Holder or in such other proportions as shall mutually be agreed to by all such selling Holders. To facilitate the allocation of shares in accordance with the above provisions, the Company or the underwriters may round the number of shares allocated to any Holder to the nearest 100 shares. Notwithstanding the foregoing, in no event shall (i) the number of Registrable Securities included in the offering be reduced unless all other securities (other than securities to be sold by the Company) are first entirely excluded from the offering, (ii) the number of Registrable Securities included in the offering be reduced below thirty percent (30%) of the total number of securities included in such offering, unless such offering is the IPO, in which case the selling Holders may be excluded further if the underwriters make the determination described above and no other stockholder's securities are included in such offering, or (iii) notwithstanding (ii) above, any Registrable Securities which are not Key Holder Registrable Securities be excluded from such underwriting unless all Key Holder Registrable Securities are first excluded from such offering. For purposes of the provision in this Section 2.3(b) concerning apportionment, for any selling Holder that is a partnership, limited liability company, Massachusetts Business Trust or corporation, the partners, members, retired partners, retired members, stockholders, and Affiliates of such Holder, or the estates and Immediate Family Members of any such partners, retired partners, members, and retired members and any trusts for the benefit of any of the foregoing Persons, shall be deemed to be a single "selling Holder," and any pro rata reduction with respect to such "selling Holder" shall be based upon the aggregate number of Registrable Securities owned by all Persons included in such "selling Holder," as defined in this sentence.

(c) For purposes of Section 2.1(d), a registration shall not be counted as "effected" if, as a result of an exercise of the underwriter's cutback provisions in Section 2.3(a), fewer than all of the Registrable Securities that Holders have requested to be included in such registration statement are actually included.

2.4 Obligations of the Company. Whenever required under this Section 2 to effect the registration of any Registrable Securities, the Company shall, as expeditiously as reasonably possible:

(a) prepare and file with the SEC a registration statement with respect to such Registrable Securities and use its commercially reasonable efforts to cause such registration statement to become effective and, upon the request of the Holders of a majority of the Registrable Securities registered thereunder, keep such registration statement effective for a period of up to one hundred twenty (120) days or, if earlier, until the distribution contemplated in the registration statement has been completed; provided, however, that (i) such one hundred twenty (120) day period shall be extended for a period of time equal to the period the Holder refrains, at the request of an underwriter of Common Stock (or other securities) of the Company, from selling any securities included in such registration, and (ii) in the case of any registration of Registrable Securities on Form S-3 that are intended to be offered on a continuous or delayed

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basis, subject to compliance with applicable SEC rules, such one hundred twenty (120) day period shall be extended for up to one hundred eighty (180) days, if necessary, to keep the registration statement effective until all such Registrable Securities are sold;

- (b) prepare and file with the SEC such amendments and supplements to such registration statement, and the prospectus used in connection with such registration statement, as may be necessary to comply with the Securities Act in order to enable the disposition of all securities covered by such registration statement;
- (c) furnish to the selling Holders such numbers of copies of a prospectus, including a preliminary prospectus, as required by the Securities Act, and such other documents as the Holders may reasonably request in order to facilitate their disposition of their Registrable Securities;
- (d) use its commercially reasonable efforts to register and qualify the securities covered by such registration statement under such other securities or blue-sky laws of such jurisdictions as shall be reasonably requested by the selling Holders; provided that the Company shall not be required to qualify to do business or to file a general consent to service of process in any such states or jurisdictions, unless the Company is already subject to service in such jurisdiction and except as may be required by the Securities Act;
- (e) in the event of any underwritten public offering, enter into and perform its obligations under an underwriting agreement, in usual and customary form, with the underwriter(s) of such offering;
- (f) use its commercially reasonable efforts to cause all such Registrable Securities covered by such registration statement to be listed on a national securities exchange or trading system and each securities exchange and trading system (if any) on which similar securities issued by the Company are then listed;
- (g) provide a transfer agent and registrar for all Registrable Securities registered pursuant to this Agreement and provide a CUSIP number for all such Registrable Securities, in each case not later than the effective date of such registration;
- (h) promptly make available for inspection by the selling Holders, any underwriter(s) participating in any disposition pursuant to such registration statement, and any attorney or accountant or other agent retained by any such underwriter or selected by the selling Holders, all financial and other records, pertinent corporate documents, and properties of the Company, and cause the Company's officers, directors, employees, and independent accountants to supply all information reasonably requested by any such seller, underwriter, attorney, accountant, or agent, in each case, as necessary or advisable to verify the accuracy of the information in such registration statement and to conduct appropriate due diligence in connection therewith;
- (i) notify each selling Holder, promptly after the Company receives notice thereof, of the time when such registration statement has been declared effective or a supplement to any prospectus forming a part of such registration statement has been filed; and

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- (j) after such registration statement becomes effective, notify each selling Holder of any request by the SEC that the Company amend or supplement such registration statement or prospectus.

2.5 Furnish Information. It shall be a condition precedent to the obligations of the Company to take any action pursuant to this Section 2 with respect to the Registrable Securities of any selling Holder that such Holder shall furnish to the Company such information regarding itself, the Registrable Securities held by it, and the intended method of disposition of such securities as is reasonably required to effect the registration of such Holder's Registrable Securities.

2.6 Expenses of Registration. All expenses (other than Selling Expenses) incurred in connection with registrations, filings, or qualifications pursuant to Section 2, including all registration, filing, and qualification fees; printers' and accounting fees; fees and disbursements of counsel for the Company; and the reasonable fees and disbursements of one counsel for the selling Holders ("**Selling Holder Counsel**"), shall be borne and paid by the Company; provided, however, that the Company shall not be required to pay for any expenses of any registration proceeding begun pursuant to Section 2.1 if the registration request is subsequently withdrawn at the request of the Holders of a majority of the Registrable Securities to be registered (in which case all selling Holders shall bear such expenses pro rata based upon the number of Registrable Securities that were to be included in the withdrawn registration), unless the Holders of a majority of the Registrable Securities agree to forfeit their right to one registration pursuant to Section 2.1(a) or Section 2.1(b), as the case may be; provided further that if, at the time of such withdrawal, the Holders shall have learned of a material adverse change in the condition, business, or prospects of the Company from that known to the Holders at the time of their request and have withdrawn the request with reasonable promptness after learning of such information then the Holders shall not be required to pay any of such expenses and shall not forfeit their right to one registration pursuant to Section 2.1(a) or Section 2.1(b). All Selling Expenses relating to Registrable Securities registered pursuant to this Section 2 shall be borne and paid by the Holders pro rata on the basis of the number of Registrable Securities registered on their behalf.

2.7 Delay of Registration. No Holder shall have any right to obtain or seek an injunction restraining or otherwise delaying any registration pursuant to this Agreement as the result of any controversy that might arise with respect to the interpretation or implementation of this Section 2.

2.8 Indemnification. If any Registrable Securities are included in a registration statement under this Section 2:

- (a) To the extent permitted by law, the Company will indemnify and hold harmless each selling Holder, and the partners, members, officers, directors, and stockholders of each such Holder; legal counsel and accountants for each such Holder; any underwriter (as defined in the Securities Act) for each such Holder; and each Person, if any, who controls such Holder or underwriter within the meaning of the Securities Act or the Exchange Act, against any Damages, and the Company will pay to each such Holder, underwriter, controlling Person, or other aforementioned Person any legal or other expenses reasonably

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incurred thereby in connection with investigating or defending any claim or proceeding from which Damages may result, as such expenses are incurred; provided, however, that the indemnity agreement contained in this Section 2.8(a) shall not apply to amounts paid in settlement of any such claim or proceeding if such settlement is effected without the consent of the Company, which consent shall not be unreasonably withheld, nor shall the Company be liable for any Damages to the extent that they arise out of or are based upon actions or omissions made in reliance upon and in conformity with written

information furnished by or on behalf of any such Holder, underwriter, controlling Person, or other aforementioned Person expressly for use in connection with such registration.

(b) To the extent permitted by law, each selling Holder, severally and not jointly, will indemnify and hold harmless the Company, and each of its directors, each of its officers who has signed the registration statement, each Person (if any), who controls the Company within the meaning of the Securities Act, legal counsel and accountants for the Company, any underwriter (as defined in the Securities Act), any other Holder selling securities in such registration statement, and any controlling Person of any such underwriter or other Holder, against any Damages, in each case only to the extent that such Damages arise out of or are based upon actions or omissions made in reliance upon and in conformity with written information furnished by or on behalf of such selling Holder expressly for use in connection with such registration; and each such selling Holder will pay to the Company and each other aforementioned Person any legal or other expenses reasonably incurred thereby in connection with investigating or defending any claim or proceeding from which Damages may result, as such expenses are incurred; provided, however, that the indemnity agreement contained in this Section 2.8(b) shall not apply to amounts paid in settlement of any such claim or proceeding if such settlement is effected without the consent of the Holder, which consent shall not be unreasonably withheld; and provided further that in no event shall the aggregate amounts payable by any Holder by way of indemnity or contribution under Sections 2.8(b) and 2.8(d) exceed the proceeds from the offering received by such Holder (net of any Selling Expenses paid by such Holder), except in the case of fraud or willful misconduct by such Holder.

(c) Promptly after receipt by an indemnified party under this Section 2.8 of notice of the commencement of any action (including any governmental action) for which a party may be entitled to indemnification hereunder, such indemnified party will, if a claim in respect thereof is to be made against any indemnifying party under this Section 2.8, give the indemnifying party notice of the commencement thereof. The indemnifying party shall have the right to participate in such action and, to the extent the indemnifying party so desires, participate jointly with any other indemnifying party to which notice has been given, and to assume the defense thereof with counsel mutually satisfactory to the parties; provided, however, that an indemnified party (together with all other indemnified parties that may be represented without conflict by one counsel) shall have the right to retain one separate counsel, with the fees and expenses to be paid by the indemnifying party, if representation of such indemnified party by the counsel retained by the indemnifying party would be inappropriate due to actual or potential differing interests between such indemnified party and any other party represented by such counsel in such action. The failure to give notice to the indemnifying party within a reasonable time of the commencement of any such action shall relieve such indemnifying party of any liability to the indemnified party under this Section 2.8, to the extent that such failure materially prejudices the indemnifying party's ability to defend such action. The failure to give notice to

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the indemnifying party will not relieve it of any liability that it may have to any indemnified party otherwise than under this Section 2.8.

(d) To provide for just and equitable contribution to joint liability under the Securities Act in any case in which either (i) any party otherwise entitled to indemnification hereunder makes a claim for indemnification pursuant to this Section 2.8 but it is judicially determined (by the entry of a final judgment or decree by a court of competent jurisdiction and the expiration of time to appeal or the denial of the last right of appeal) that such indemnification may not be enforced in such case, notwithstanding the fact that this Section 2.8 provides for indemnification in such case, or (ii) contribution under the Securities Act may be required on the part of any party hereto for which indemnification is provided under this Section 2.8, then, and in each such case, such parties will contribute to the aggregate losses, claims, damages, liabilities, or expenses to which they may be subject (after contribution from others) in such proportion as is appropriate to reflect the relative fault of each of the indemnifying party and the indemnified party in connection with the statements, omissions, or other actions that resulted in such loss, claim, damage, liability, or expense, as well as to reflect any other relevant equitable considerations. The relative fault of the indemnifying party and of the indemnified party shall be determined by reference to, among other things, whether the untrue or allegedly untrue statement of a material fact, or the omission or alleged omission of a material fact, relates to information supplied by the indemnifying party or by the indemnified party and the parties' relative intent, knowledge, access to information, and opportunity to correct or prevent such statement or omission; provided, however, that, in any such case, (x) no Holder will be required to contribute any amount in excess of the public offering price of all such Registrable Securities offered and sold by such Holder pursuant to such registration statement, and (y) no Person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) will be entitled to contribution from any Person who was not guilty of such fraudulent misrepresentation; and provided further that in no event shall a Holder's liability pursuant to this Section 2.8(d), when combined with the amounts paid or payable by such Holder pursuant to Section 2.8(b), exceed the proceeds from the offering received by such Holder (net of any Selling Expenses paid by such Holder) except in the case of willful misconduct or fraud by such Holder.

(e) Notwithstanding the foregoing, to the extent that the provisions on indemnification and contribution contained in the underwriting agreement entered into in connection with the underwritten public offering are in conflict with the foregoing provisions, the provisions in the underwriting agreement shall control.

(f) Unless otherwise superseded by an underwriting agreement entered into in connection with the underwritten public offering, the obligations of the Company and Holders under this Section 2.8 shall survive the completion of any offering of Registrable Securities in a registration under this Section 2, and otherwise shall survive the termination of this Agreement.

2.9 Reports Under Exchange Act. With a view to making available to the Holders the benefits of SEC Rule 144 and any other rule or regulation of the SEC that may at any time permit a Holder to sell securities of the Company to the public without registration or pursuant to a registration on Form S-3, the Company shall:

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(a) make and keep available adequate current public information, as those terms are understood and defined in SEC Rule 144, at all times after the effective date of the registration statement filed by the Company for the IPO;

(b) use commercially reasonable efforts to file with the SEC in a timely manner all reports and other documents required of the Company under the Securities Act and the Exchange Act (at any time after the Company has become subject to such reporting requirements); and

(c) furnish to any Holder, so long as the Holder owns any Registrable Securities, forthwith upon request (i) to the extent applicable, a written statement by the Company that it has complied with the reporting requirements of SEC Rule 144 (at any time after ninety (90) days after

the effective date of the registration statement filed by the Company for the IPO), the Securities Act, and the Exchange Act (at any time after the Company has become subject to such reporting requirements), or that it qualifies as a registrant whose securities may be resold pursuant to Form S-3 (at any time after the Company so qualifies); (ii) a copy of the most recent annual or quarterly report of the Company and such other reports and documents so filed by the Company; and (iii) such other information as may be reasonably requested in availing any Holder of any rule or regulation of the SEC that permits the selling of any such securities without registration (at any time after the Company has become subject to the reporting requirements under the Exchange Act) or pursuant to Form S-3 (at any time after the Company so qualifies to use such form).

2.10 Limitations on Subsequent Registration Rights. From and after the date of this Agreement, the Company shall not, without the prior written consent of the Holders of (a) at least sixty percent (60%) of the Registrable Securities then outstanding held by the Holders of Series A Preferred Stock and Series B Preferred Stock, voting together as a single class and on an as-converted basis, and (b) at least sixty percent (60%) of the Registrable Securities then outstanding held by the Holders of Preferred Stock, voting together as a single class and on an as-converted basis, enter into any agreement with any holder or prospective holder of any securities of the Company that would (i) allow such holder or prospective holder to include such securities in any registration unless, under the terms of such agreement, such holder or prospective holder may include such securities in any such registration only to the extent that the inclusion of such securities will not reduce the number of the Registrable Securities of the Holders that are included or (ii) allow such holder or prospective holder to initiate a demand for registration of any securities held by such holder or prospective holder; provided that this limitation shall not apply to any additional Investor who becomes a party to this Agreement in accordance with Section 6.9.

2.11 "Market Stand-off" Agreement. Each Holder hereby agrees that it will not, without the prior written consent of the managing underwriter, during the period commencing on the date of the final prospectus relating to the IPO and ending on the date specified by the Company and the managing underwriter (such period not to exceed one hundred eighty (180) days) or such other period as may be requested by the Company or an underwriter to accommodate regulatory restrictions on (1) the publication or other distribution of research reports and (2) analyst recommendations and opinions, including, but not limited to, the restrictions contained in FINRA Rule 2711(f)(4) or NYSE Rule 472(f)(4), or any successor

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provisions or amendments thereto), (i) lend; offer; pledge; sell; contract to sell; sell any option or contract to purchase; purchase any option or contract to sell; grant any option, right, or warrant to purchase; or otherwise transfer or dispose of, directly or indirectly, any shares of Common Stock or any securities convertible into or exercisable or exchangeable (directly or indirectly) for Common Stock held immediately before the effective date of the registration statement for such offering or (ii) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of such securities, whether any such transaction described in clause (i) or (ii) above is to be settled by delivery of Common Stock or other securities, in cash, or otherwise. The foregoing provisions of this Section 2.11 shall not apply to the sale of any shares to an underwriter pursuant to an underwriting agreement, or the transfer of any shares to any trust for the direct or indirect benefit of the Holder or an Immediate Family Member of the Holder or an Affiliate of the Holder, provided that the trustee of the trust agrees to be bound in writing by the restrictions set forth herein, and provided further that any such transfer shall not involve a disposition for value, and shall be applicable to the Holders only if all officers and directors are subject to the same restrictions and the Company uses commercially reasonable efforts to obtain a similar agreement from all stockholders individually owning more than one percent (1%) of the Company's outstanding Common Stock (after giving effect to conversion into Common Stock of all outstanding Preferred Stock). The underwriters in connection with such registration are intended third-party beneficiaries of this Section 2.11 and shall have the right, power, and authority to enforce the provisions hereof as though they were a party hereto. Each Holder further agrees to execute such agreements as may be reasonably requested by the underwriters in connection with such registration that are consistent with this Section 2.11 or that are necessary to give further effect thereto. Notwithstanding the foregoing, the Company shall use commercially reasonable efforts to obtain from the managing underwriter(s) an agreement, and the underwriters may, in their sole discretion agree, to waive these restrictions in order to provide for periodic early releases of portions of the aforesaid securities upon the occurrence of certain specified events, any such release to apply pro rata to all Holders subject to this Section 2.11, based on the number of securities (determined on an as-converted basis) subject to the restrictions set forth in this Section 2.11.

2.12 Restrictions on Transfer.

(a) The Preferred Stock and the Registrable Securities shall not be sold, pledged, or otherwise transferred, and the Company shall not recognize and shall issue stop-transfer instructions to its transfer agent with respect to any such sale, pledge, or transfer, except upon the conditions specified in this Agreement, which conditions are intended to ensure compliance with the provisions of the Securities Act. A transferring Holder will cause any proposed purchaser, pledgee, or transferee of the Preferred Stock and the Registrable Securities held by such Holder to agree to take and hold such securities subject to the provisions and upon the conditions specified in this Agreement.

(b) Each certificate or instrument representing (i) the Preferred Stock, (ii) the Registrable Securities, and (iii) any other securities issued in respect of the securities referenced in clauses (i) and (ii), upon any stock split, stock dividend, recapitalization, merger, consolidation, or similar event, shall (unless otherwise permitted by the provisions of Section 2.12(c)) be stamped or otherwise imprinted with a legend substantially in the following form:

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THE SHARES REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AND HAVE BEEN ACQUIRED FOR INVESTMENT AND NOT WITH A VIEW TO, OR IN CONNECTION WITH, THE SALE OR DISTRIBUTION THEREOF. NO SUCH TRANSFER MAY BE EFFECTED WITHOUT AN EFFECTIVE REGISTRATION STATEMENT RELATED THERETO OR AN OPINION OF COUNSEL IN A FORM SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED UNDER THE SECURITIES ACT OF 1933.

THE SECURITIES REPRESENTED HEREBY MAY BE TRANSFERRED ONLY IN ACCORDANCE WITH THE TERMS OF AN INVESTORS' RIGHTS AGREEMENT BETWEEN THE COMPANY AND THE STOCKHOLDER, A COPY OF WHICH IS ON FILE WITH THE SECRETARY OF THE COMPANY.

The Holders consent to the Company making a notation in its records and giving instructions to any transfer agent of the Restricted Securities in order to implement the restrictions on transfer set forth in this Section 2.12.

(c) The holder of each certificate representing Restricted Securities, by acceptance thereof, agrees to comply in all respects with the provisions of this Section 2. Before any proposed sale, pledge, or transfer of any Restricted Securities, unless there is in effect a registration statement under the Securities Act covering the proposed transaction, the Holder thereof shall give notice to the Company of such Holder's intention to effect such sale, pledge, or transfer. Each such notice shall describe the manner and circumstances of the proposed sale, pledge, or transfer in sufficient detail and, if reasonably requested by the Company, shall be accompanied at such Holder's expense by either (i) a written opinion of legal counsel who shall, and whose legal opinion shall, be reasonably satisfactory to the Company, addressed to the Company, to the effect that the proposed transaction may be effected without registration under the Securities Act; (ii) a "no action" letter from the SEC to the effect that the proposed sale, pledge, or transfer of such Restricted Securities without registration will not result in a recommendation by the staff of the SEC that action be taken with respect thereto; or (iii) any other evidence reasonably satisfactory to counsel to the Company to the effect that the proposed sale, pledge, or transfer of the Restricted Securities may be effected without registration under the Securities Act, whereupon the Holder of such Restricted Securities shall be entitled to sell, pledge, or transfer such Restricted Securities in accordance with the terms of the notice given by the Holder to the Company. Notwithstanding the foregoing, the Company will not require such a legal opinion or "no action" letter (x) in any transaction in compliance with SEC Rule 144 or (y) in any transaction in which such Holder distributes Restricted Securities to an Affiliate of such Holder in compliance with the registration or qualification provisions of the Securities Act of 1933, as amended, or applicable exemptions therefrom, or (z) in the case of any Holder that is a natural person, in connection with any transfer for no consideration by such Holder for *bona fide* estate planning purposes, either during such Holder's lifetime or on death by gift, will, intestate succession; provided that each transferee agrees in writing to be subject to the terms of this Section 2.12. Each certificate or instrument evidencing the Restricted Securities transferred as above provided shall bear, except if such transfer is made pursuant to SEC Rule 144, the

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appropriate restrictive legend set forth in Section 2.12(b), except that such certificate shall not bear such restrictive legend if, in the opinion of counsel for such Holder and the Company, such legend is not required in order to establish compliance with any provisions of the Securities Act.

2.13 Termination of Registration Rights. The right of any Holder to request registration or inclusion of Registrable Securities in any registration pursuant to Section 2.1 or Section 2.2 shall terminate upon the earliest to occur of:

- (a) the closing of a Deemed Liquidation Event, as such term is defined in the Company's Certificate of Incorporation (as amended and/or restated from time to time); and
- (b) the fifth anniversary of the IPO.

3. Information Rights.

3.1 Delivery of Financial Statements. The Company shall deliver to each Major Investor:

(a) as soon as practicable, but in any event within one hundred eighty (180) days after the end of each fiscal year of the Company, (i) a balance sheet as of the end of such year, (ii) statements of income and of cash flows for such year, and a comparison between (x) the actual amounts as of and for such fiscal year and (y) the comparable amounts for the prior year and as included in the Budget (as defined in Section 3.1(e)) for such year, with an explanation of any material differences between such amounts and a schedule as to the sources and applications of funds for such year, and (iii) a statement of stockholders' equity as of the end of such year, all such financial statements audited and certified by independent public accountants of nationally recognized standing selected by the Company and approved by the Board of Directors;

(b) as soon as practicable, but in any event within forty-five (45) days after the end of each of the first three (3) quarters of each fiscal year of the Company, unaudited statements of income and of cash flows for such fiscal quarter, and an unaudited balance sheet and a statement of stockholders' equity as of the end of such fiscal quarter, all prepared in accordance with GAAP (except that such financial statements may (i) be subject to normal year-end audit adjustments and (ii) not contain all notes thereto that may be required in accordance with GAAP);

(c) as soon as practicable, but in any event within forty-five (45) days after the end of each of the first three (3) quarters of each fiscal year of the Company, a statement showing the number of shares of each class and series of capital stock and securities convertible into or exercisable for shares of capital stock outstanding at the end of the period, the Common Stock issuable upon conversion or exercise of any outstanding securities convertible or exercisable for Common Stock and the exchange ratio or exercise price applicable thereto, and the number of shares of issued stock options and stock options not yet issued but reserved for issuance, if any, all in sufficient detail as to permit the Major Investors to calculate their respective percentage equity ownership in the Company, and certified on behalf of the Company

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by the chief financial officer or chief executive officer of the Company as being true, complete, and correct;

(d) as soon as practicable, but in any event within thirty (30) days after the end of each fiscal year, a budget and business plan for the next fiscal year (collectively, the "**Budget**"), approved by the Board of Directors and prepared on a quarterly basis, including balance sheets, income statements, and statements of cash flow for such months and, promptly after prepared, any other budgets or revised budgets prepared by the Company;

(e) with respect to the financial statements called for in Section 3.1(a) and Section 3.1(b), an instrument executed on behalf of the Company by the chief financial officer and chief executive officer of the Company certifying that such financial statements were prepared in accordance with GAAP consistently applied with prior practice for earlier periods (except as otherwise set forth in Section 3.1(b)) and fairly present the financial condition of the Company and its results of operation for the periods specified therein; and

(f) such other information relating to the financial condition, business, prospects, or corporate affairs of the Company as any Major Investor may from time to time reasonably request; provided, however, that the Company shall not be obligated under this Section 3.1 to provide information (i) that the Company reasonably determines in good faith to be a trade secret or confidential information (unless covered by an enforceable confidentiality agreement, in form acceptable to the Company) or (ii) the disclosure of which would adversely affect the attorney-client privilege between the Company and its counsel.

If, for any period, the Company has any subsidiary whose accounts are consolidated with those of the Company, then in respect of such period the financial statements delivered pursuant to the foregoing sections shall be the consolidated and consolidating financial statements of the Company and all such consolidated subsidiaries.

Notwithstanding anything else in this Section 3.1 to the contrary, the Company may cease providing the information set forth in this Section 3.1 during the period starting with the date sixty (60) days before the Company's good-faith estimate of the date of filing of a registration statement if it reasonably concludes it must do so to comply with the SEC rules applicable to such registration statement and related offering; provided that the Company's covenants under this Section 3.1 shall be reinstated at such time as the Company is no longer actively employing its commercially reasonable efforts to cause such registration statement to become effective.

3.2 Inspection. The Company shall permit each Major Investor, at such Major Investor's expense, to visit and inspect the Company's properties; examine its books of account and records; and discuss the Company's affairs, finances, and accounts with its officers, during normal business hours of the Company as may be reasonably requested by the Major Investor; provided, however, that the Company shall not be obligated pursuant to this Section 3.2 to provide access to any information that it reasonably and in good faith considers to be a trade secret or confidential information (unless covered by an enforceable confidentiality agreement, in form acceptable to the Company) or the disclosure of which would adversely affect the attorney-client privilege between the Company and its counsel.

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3.3 Termination of Information. The covenants set forth in Section 3.1, and Section 3.2 shall terminate and be of no further force or effect (i) immediately before the consummation of a Qualified Public Offering or (ii) upon a Deemed Liquidation Event, as such term is defined in the Company's Certificate of Incorporation (as amended and/or restated from time to time), whichever event occurs first.

3.4 Confidentiality. Each Investor agrees that such Investor will keep confidential and will not disclose, divulge, or use for any purpose (other than to monitor its investment in the Company) any confidential information obtained from the Company pursuant to the terms of this Agreement (including notice of the Company's intention to file a registration statement), unless such confidential information (a) is known or becomes known to the public in general (other than as a result of a breach of this Section 3.4 by such Investor), (b) is or has been independently developed or conceived by the Investor without use of the Company's confidential information, or (c) is or has been made known or disclosed to the Investor by a third party without a breach of any obligation of confidentiality such third party may have to the Company; provided, however, that an Investor may disclose confidential information (i) to its attorneys, accountants, consultants, and other professionals to the extent necessary to obtain their services in connection with monitoring its investment in the Company; (ii) to any prospective purchaser of any Registrable Securities from such Investor, if such prospective purchaser agrees to be bound by the provisions of this Section 3.4; (iii) to any Affiliate, partner, member, stockholder, or wholly owned subsidiary of such Investor in the ordinary course of business, provided that such Investor informs such Person that such information is confidential and directs such Person to maintain the confidentiality of such information; or (iv) as may otherwise be required by law, provided that the Investor promptly notifies the Company of such disclosure and takes reasonable steps to minimize the extent of any such required disclosure.

4. Rights to Future Stock Issuances.

4.1 Right of First Offer. Subject to the terms and conditions of this Section 4.1 and applicable securities laws, if the Company proposes to offer or sell any New Securities, the Company shall first offer such New Securities to each Investor (the "**Preemptive Right Holders**"). A Preemptive Right Holder shall be entitled to apportion the right of first offer hereby granted to it among itself and its Affiliates in such proportions as it deems appropriate.

(a) The Company shall give notice (the "**Offer Notice**") to each Preemptive Right Holder, stating (i) its bona fide intention to offer such New Securities, (ii) the number of such New Securities to be offered, and (iii) the price and terms, if any, upon which it proposes to offer such New Securities.

(b) By notification to the Company within twenty (20) days after the Offer Notice is given, each Preemptive Right Holder may elect to purchase or otherwise acquire, at the price and on the terms specified in the Offer Notice, up to that portion of such New Securities which equals the proportion that the Common Stock issued and held, or issuable (directly or indirectly) upon conversion and/or exercise, as applicable of all Derivative Securities then held, by such Preemptive Right Holder bears to the total Common Stock then outstanding (assuming full conversion and/or exercise, as applicable, of all then outstanding Derivative Securities). At the expiration of such twenty (20) day period, the Company shall promptly notify

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each Preemptive Right Holder that elects to purchase or acquire all the shares available to it (each, a "**Fully Exercising Investor**") of any other Preemptive Right Holder's failure to do likewise. During the ten (10) day period commencing after the Company has given such notice, each Fully Exercising Investor may, by giving notice to the Company, elect to purchase or acquire, in addition to the number of shares specified above, up to that portion of the New Securities for which Preemptive Right Holders were entitled to subscribe but that were not subscribed for by the Preemptive Right Holders which is equal to the proportion that the Common Stock issued and held, or issuable (directly or indirectly) upon conversion and/or exercise, as applicable, of all Derivative Securities then held, by such Fully Exercising Investor bears to the Common Stock issued and held, or issuable (directly or indirectly) upon conversion and/or exercise, as applicable, of all Derivative Securities then held, by all Fully Exercising Investors who wish to purchase such unsubscribed shares. The closing of any sale pursuant to this Section 4.1(b) shall occur within the later of one hundred and twenty (120) days after the date that the Offer Notice is given and the date of initial sale of New Securities pursuant to Section 4.1(c).

(c) If all New Securities referred to in the Offer Notice are not elected to be purchased or acquired as provided in Section 4.1(b), the Company may, during the ninety (90) day period following the expiration of the periods provided in Section 4.1(b), offer and sell the remaining unsubscribed portion of such New Securities to any Person or Persons at a price not less than, and upon terms no more favorable to the offeree than, those specified in the Offer Notice. If the Company does not enter into an agreement for the sale of the New Securities within such period, or if such agreement is not consummated within thirty (30) days after the execution thereof, the right provided hereunder shall be deemed to be revived and such New Securities shall not be offered unless first reoffered to the Major Investors in accordance with this Section 4.1.

(d) The right of first offer in this Section 4.1 shall not be applicable to (i) Exempted Securities (as defined in the Company's Certificate of Incorporation, as amended and/or restated from time to time); and (ii) shares of Common Stock issued in a Qualified Public Offering.

4.2 Termination. The covenants set forth in Section 4.1 shall terminate and be of no further force or effect (i) immediately before the consummation of a Qualified Public Offering or (ii) upon a Deemed Liquidation Event, as such term is defined in the Company's Certificate of Incorporation (as amended and/or restated from time to time), whichever event occurs first.

5. Additional Covenants.

5.1 Employee Agreements. The Company will cause (i) each person (including each Key Employee) now or hereafter employed by it or by any subsidiary (or engaged by the Company or any subsidiary as a consultant/independent contractor) with access to confidential information and/or trade secrets to enter into a nonsolicitation, nondisclosure and proprietary information assignment agreement and (ii) each Key Employee to enter into a one (1) year noncompetition and nonsolicitation agreement.

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5.2 Vesting Terms.

(a) Founders. Unless otherwise approved by the Board of Directors, the Founders shall have executed restricted stock agreements for the purchase of restricted Common Stock providing for vesting of shares over a four (4) year period, with the first twenty-five percent (25%) of such shares vesting upon issuance and the remaining shares vesting in equal quarterly installments over the following four (4) years. In addition, all shares of the Founders' unvested Common Stock shall fully vest in connection with a Change in Control as defined in the restricted stock agreements.

(a) Employees and Consultants. Unless otherwise approved by the Board of Directors, all future employees and consultants of the Company who purchase, receive options to purchase, or receive awards of shares of the Company's capital stock after the date hereof shall be required to execute restricted stock or option agreements, as applicable, providing for (i) vesting of shares over a four (4) year period, with the first twenty-five percent (25%) of such shares vesting following twelve (12) months of continued employment or service, and the remaining shares vesting in equal quarterly installments over the following three (3) years, and (ii) a market stand-off provision substantially similar to that in Section 2.11. In addition, unless otherwise approved by the Board of Directors, the Company shall retain a "right of first refusal" on employee transfers until the Company's Qualified Public Offering and shall have the right to repurchase unvested shares at cost upon termination of employment of a holder of restricted stock.

5.3 Board Matters. Unless otherwise determined by the vote of a majority of the directors then in office, the Board of Directors shall meet at least quarterly in accordance with an agreed-upon schedule. The Company shall reimburse the directors for all reasonable out-of-pocket travel expenses incurred (consistent with the Company's travel policy) in connection with attending meetings of the Board of Directors. The Company will maintain an audit committee, which shall consist solely of non-management directors, and a compensation committee. Further, the compensation committee shall be comprised of no more than three directors, two of whom shall be Series A Directors.

5.4 Successor Indemnification. If the Company or any of its successors or assignees consolidates with or merges into any other Person and is not the continuing or surviving corporation or entity of such consolidation or merger, then to the extent necessary, proper provision shall be made so that the successors and assignees of the Company assume the obligations of the Company with respect to indemnification of members of the Board of Directors as in effect immediately before such transaction, whether such obligations are contained in the Company's Bylaws (as amended and/or restated from time to time), its Certificate of Incorporation (as amended and/or restated from time to time), or elsewhere, as the case may be.

5.5 Insurance. The Company will use commercially reasonable efforts to maintain from financially sound and reputable insurers Directors and Officers liability insurance in an amount and on terms and conditions satisfactory to the Board of Directors until such time as the Board of Directors determines that such insurance should be discontinued. The Company

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shall name the Company as loss payee, and the policy shall not be cancelable by the Company without prior approval by the Board of Directors, including a majority of the Series A Directors.

5.6 Matters Requiring Investor Director Approval. The Company hereby covenants and agrees with each of the Investors that it shall not, without approval of the Board of Directors, which approval must include the affirmative vote of a majority of the Series A Directors then in office:

(a) make, or permit any subsidiary to make, any loan or advance to, or own any stock or other securities of, any subsidiary or other corporation, partnership, or other entity unless it is wholly owned by the Company;

(b) make, or permit any subsidiary to make, any loan or advance to any Person, including, without limitation, any employee or director of the Company or any subsidiary, except advances and similar expenditures in the ordinary course of business or under the terms of an employee stock or option plan approved by the Board of Directors;

(c) guarantee, directly or indirectly, or permit any subsidiary to guarantee, directly or indirectly, any indebtedness except for trade accounts of the Company or any subsidiary arising in the ordinary course of business;

(d) make any investment other than investments in prime commercial paper, money market funds, certificates of deposit in any U.S. bank having a net worth in excess of \$100,000,000 or obligations issued or guaranteed by the United States, in each case having a maturity not in excess of two (2) years;

(e) otherwise enter into or be a party to any transaction with any director, officer, or employee of the Company or any "associate" (as defined in Rule 12b-2 promulgated under the Exchange Act) of any such Person, except for transactions contemplated by this Agreement or the Purchase Agreement;

(f) incur any aggregate indebtedness in excess of \$100,000, in a single or series of related transactions, other than trade credit incurred in the ordinary course of business;

(g) hire, terminate, or change the compensation of the executive officers, including approving any option grants or stock awards to executive officers;

(h) change the principal business of the Company, enter new lines of business, or exit the current line of business;

(i) sell, transfer, assign, license, pledge, or encumber material technology or intellectual property, other than licenses granted in the ordinary course of business; or

(j) enter into any corporate strategic relationship involving the payment, contribution, or assignment by the Company or to the Company of money or assets greater than \$100,000.

5.7 Termination of Covenants. The covenants set forth in this Section 5, except for Section 5.4, shall terminate and be of no further force or effect (i) immediately before the consummation of a Qualified Public Offering or (ii) upon a Deemed Liquidation Event, as such term is defined in the Company's Certificate of Incorporation (as amended and/or restated from time to time), whichever event occurs first.

6. Miscellaneous.

6.1 Successors and Assigns. The rights under this Agreement may be assigned (but only with all related obligations) by a Holder to a transferee of Registrable Securities that (i) is a direct or indirect beneficial owner of a Holder or an Affiliate of a Holder (ii) is an Affiliate of a Holder; (iii) is an Immediate Family Member or trust for the benefit of an individual Holder or any individual described in clauses (i) or (ii) above or one or more of any such individual's Immediate Family Members; (iv) in the case of any Holder that is a natural person, is a transferee pursuant to any transfer by such Holder for *bona fide* estate planning purposes, either during such Holder's lifetime or on death by gift, will, intestate succession; or (v) after such transfer, holds at least five percent (5%) of such Holder's Registrable Securities; provided, however, that (x) the Company is, within a reasonable time after such transfer, furnished with written notice of the name and address of such transferee and the Registrable Securities with respect to which such rights are being transferred; (y) such transferee agrees in a written instrument delivered to the Company to be bound by and subject to the terms and conditions of this Agreement, including the provisions of Section 2.11 and (z) such transferee is not, a direct or indirect competitor of the Company, provided that transfers to companies whose primary purpose is to make investments shall not be deemed to be competitors of the Company. For the purposes of determining the number of shares of Registrable Securities held by a transferee, the holdings of a transferee (1) that is a direct or indirect beneficial owner of a Holder or an Affiliate of a Holder; (2) that is an Affiliate of a Holder; (3) who is an Immediate Family Member of an individual Holder or any individual described in clauses (1) or (2) above; or (4) that is a trust for the benefit of an individual Holder, any individual described in clauses (1) or (2) above, or any such individual's Immediate Family Members shall be aggregated together and with those of the transferring Holder; provided further that all transferees who would not qualify individually for assignment of rights shall have a single attorney-in-fact for the purpose of exercising any rights, receiving notices, or taking any action under this Agreement. The terms and conditions of this Agreement inure to the benefit of and are binding upon the respective successors and permitted assignees of the parties. Nothing in this Agreement, express or implied, is intended to confer upon any party other than the parties hereto or their respective successors and permitted assignees any rights, remedies, obligations or liabilities under or by reason of this Agreement, except as expressly provided herein.

6.2 Governing Law. This Agreement and any controversy arising out of or relating to this Agreement shall be governed by and construed in accordance with the General Corporation Law of the State of Delaware as to matters within the scope thereof, and as to all other matters shall be governed by and construed in accordance with the internal laws of the Commonwealth of Massachusetts, without regard to conflict of law principles that would result in the application of any law other than the law of the Commonwealth of Massachusetts.

6.3 Counterparts; Facsimile. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. This Agreement may also be executed and delivered by facsimile signature and in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

6.4 Titles and Subtitles. The titles and subtitles used in this Agreement are for convenience only and are not to be considered in construing or interpreting this Agreement.

6.5 Notices. All notices and other communications given or made pursuant to this Agreement shall be in writing and shall be deemed effectively given upon the earlier of actual receipt or: (i) personal delivery to the party to be notified; (ii) when sent, if sent by electronic mail or facsimile during the recipient's normal business hours, and if not sent during normal business hours, then on the recipient's next business day; (iii) five (5) days after having been sent by registered or certified mail, return receipt requested, postage prepaid; or (iv) one (1) business day (or two (2) business days, in the case of notices and other communications sent to the Cayman Islands) after the business day of deposit with a nationally recognized overnight courier, freight prepaid, specifying next-day delivery, with written verification of receipt. All communications shall be sent to the respective parties at their addresses as set forth on Schedule A or Schedule B (as applicable) hereto, or to the principal office of the Company and to the attention of the Chief Executive Officer, in the case of the Company, or to such email address, facsimile number, or address as subsequently modified by written notice given in accordance with this Section 6.5. If notice is given to the Company, a copy (which shall not constitute notice) shall also be sent to Wilmer Cutler Pickering Hale and Dorr LLP, 60 State Street, Boston, MA 02109, Attn: Graham Robinson, Esq., and if notice is given to the Investors, a copy shall also be given to a copy (which shall not constitute notice) shall also be given to Goodwin Procter LLP, 53 State Street, Boston, MA 02109, Attn: Michael H. Bison, Esq., and to Dechert LLP, 902 Carnegie Center, suite 500, Princeton, NJ 08540, Attn: Ella DeTrizio, Esq.

6.6 Amendments and Waivers. Any term of this Agreement may be amended and the observance of any term of this Agreement may be waived (either generally or in a particular instance, and either retroactively or prospectively) only by a written instrument executed by (a) the Company, (b) the holders of at least sixty percent (60%) of the shares of Common Stock issued or issuable upon conversion of the shares of Series A Preferred Stock and

Series B Preferred Stock then held by the Investors (voting as a single class and on an as-converted basis), (c) the holders of at least sixty percent (60%) of the shares of Common Stock issued or issuable upon conversion of the shares of Preferred Stock then held by the Investors (voting as a single class and on an as-converted basis) and (d) the Key Holders holding at least two-thirds of the Common Stock then held by the Key Holders who are then providing services to the Company as officers, employees or consultants; provided that the Company may in its sole discretion waive compliance with Section 2.12(c) (and the Company's failure to object promptly in writing after notification of a proposed assignment allegedly in violation of Section 2.12(c) shall be deemed to be a waiver); and provided further that any provision hereof may be waived by any waiving party on such party's own behalf, without the consent of any other party; and provided further that the written consent of the Key Holders shall not be required for any amendment or waiver if such amendment or waiver either is not directly applicable to the rights of the Key Holders or does not adversely affect the rights of the Key Holders in a manner that is

disproportionate to the effect on the rights of other parties hereto. Notwithstanding the foregoing, (i) this Agreement may not be amended or terminated and the observance of any term hereof may not be waived with respect to any Investor without the written consent of such Investor unless such amendment, termination or waiver applies to all Investors in the same fashion, and (ii) any waiver of Section 4 of this Agreement that is made in connection with a transaction in which any of the Investors, by agreement of the Company, purchases New Securities outside of the provisions of this Agreement shall be ineffective unless each Investor is afforded a similar opportunity to participate in such transaction (on the same terms and conditions) by purchasing at least such Investor's pro rata share of the New Securities sold by the Company and purchased by the Investors in such transaction. No waivers of or exceptions to any term, condition, or provision of this Agreement, in any one or more instances, shall be deemed to be or construed as a further or continuing waiver of any such term, condition, or provision. The Company shall give prompt written notice of any amendment or termination hereof or waiver hereunder to any party hereto that did not consent in writing to such amendment, termination or waiver. Any amendment, termination or waiver effected in accordance with this Section 6.6 shall be binding on all parties hereto, regardless of whether any such party has consented thereto.

6.7 Severability. In case any one or more of the provisions contained in this Agreement is for any reason held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provision of this Agreement, and such invalid, illegal, or unenforceable provision shall be reformed and construed so that it will be valid, legal, and enforceable to the maximum extent permitted by law.

6.8 Aggregation of Stock. All shares of Registrable Securities held or acquired by Affiliates shall be aggregated together for the purpose of determining the availability of any rights under this Agreement and such Affiliated persons may apportion such rights as among themselves in any manner they deem appropriate.

6.9 Additional Investors. Notwithstanding anything to the contrary contained herein, if the Company issues additional shares of Preferred Stock after the date hereof, whether pursuant to the Purchase Agreement or otherwise, any purchaser of such shares of Preferred Stock may become a party to this Agreement by executing and delivering an additional counterpart signature page to this Agreement, and thereafter shall be deemed an "Investor" for all purposes hereunder. No action or consent by the Investors shall be required for such joinder to this Agreement by such additional Investor, so long as such additional Investor has agreed in writing to be bound by all of the obligations as an "Investor" hereunder.

6.10 Entire Agreement. This Agreement (including any Schedules and Exhibits hereto) constitutes the full and entire understanding and agreement among the parties with respect to the subject matter hereof, and any other written or oral agreement relating to the subject matter hereof existing between the parties is expressly canceled.

6.11 Dispute Resolution.

(a) Any dispute, controversy, or claim arising out of, relating to, or in connection with this Agreement, or the breach, termination, or validity thereof, shall be finally settled by arbitration. The arbitration shall be conducted in accordance with the Securities

Arbitration Rules (the "Rules") of the American Arbitration Association ("AAA"), including the AAA's Procedures for Large, Complex Commercial Disputes, in effect at the time of the arbitration, except as they may be modified herein or by mutual agreement of the parties. The seat of the arbitration shall be New York, New York, and it shall be conducted in the English language. The parties consent to the jurisdiction of the federal or state courts in New York, New York for the limited purpose of enforcing this agreement to arbitrate. The arbitration and this clause shall be governed by Title 9 (Arbitration) of the United States Code.

(b) The arbitration shall be conducted by three arbitrators. The claimant shall appoint an arbitrator in its request for arbitration. The respondent shall appoint an arbitrator within 20 days of the receipt of the request for arbitration. The two arbitrators shall appoint a third arbitrator, who shall act as chair of the tribunal, within 20 days after the appointment of the second arbitrator. If any of the three arbitrators is not appointed within the time prescribed above, then the AAA shall appoint that arbitrator from its National Panel of Securities Arbitrators or its Large, Complex Commercial Case Panel, not including any such members affiliated with the securities industry. The chair of the tribunal shall be a citizen of the United States.

(c) In addition to the authority conferred on the arbitration tribunal by the Rules, the arbitration tribunal shall have the authority to order such production of documents, generally consistent with the discovery permitted under the Federal Rules of Civil Procedure, as may reasonably be requested by either party or by the tribunal itself. In addition, either party may request a reasonable number of depositions of party witnesses.

(d) The parties agree that the arbitration shall be kept confidential and that the existence of the proceeding and any element of it (including but not limited to any pleadings, briefs or other documents submitted or exchanged, any testimony or other oral submissions, and any awards) shall not be disclosed beyond the tribunal, the AAA, the parties, their counsel, accountants and auditors, insurers and re-insurers, and any person necessary to the conduct of the proceeding. The confidentiality obligations shall not apply (i) if disclosure is required by law, or in judicial or administrative proceedings, or (ii) as far as disclosure is necessary to enforce the rights arising out of the award.

(e) The arbitration award shall be final and binding on the parties. Judgment upon the award may be entered by any court having jurisdiction thereof or having jurisdiction over the relevant party or its assets.

INVESTORS:

EASTERN CAPITAL LIMITED

By: /s/ Mark VanDevelde
Name: Mark VanDevelde
Title: Director

Signature Page to Second Amended and Restated Investors' Rights Agreement

INVESTORS:

H&Q HEALTHCARE INVESTORS *
(Full Legal Name of Purchaser Entity)

By: /s/ Laura Woodward
(Authorized Signatory)

Title: Treasurer

Date:

Telephone No.: 617-772-8500

Telecopy No.: 617-772-8577

Address:

c/o Hambrecht & Quist Capital Management LLC
2 Liberty Square, 9th Floor Boston, MA 02109

* The name H&Q Healthcare Investors is the designation of the Trustees for the time being under an Amended & Restated Declaration of Trust dated April 12, 1987, as amended, and all persons dealing with H&Q Healthcare Investors must look solely to the trust property for the enforcement of any claim against H&Q Healthcare Investors, as neither the Trustees, officers nor shareholders assume any personal liability for the obligations entered into on behalf of H&Q Healthcare Investors.

Signature Page to Second Amended and Restated Investors' Rights Agreement

INVESTORS:

H&Q LIFE SCIENCES INVESTORS *
(Full Legal Name of Purchaser Entity)

By: /s/ Laura Woodward
(Authorized Signatory)

Title: Treasurer

Date:

Telephone No.: 617-772-8500

Telecopy No.: 617-772-8577

Address:

c/o Hambrecht & Quist Capital Management LLC

* The name H&Q Life Sciences Investors is the designation of the Trustees for the time being under an Amended & Restated Declaration of Trust dated February 20, 1992, as amended, and all persons dealing with H&Q Life Sciences Investors must look solely to the trust property for the enforcement of any claim against H&Q Life Sciences Investors, as neither the Trustees, officers nor shareholders assume any personal liability for the obligations entered into on behalf of H&Q Life Sciences Investors.

Signature Page to Second Amended and Restated Investors' Rights Agreement

INVESTORS:

ADVANCED TECHNOLOGY VENTURES VIII, L.P.

By: ATV Associates VIII, LLC
its General Partner

By: /s/ Jean George
Name: Jean George
Title: Managing Director

Signature Page to Second Amended and Restated Investors' Rights Agreement

INVESTORS:

ASTELLAS VENTURE FUND I LP

By: Astellas Venture Management LLC
Its: General Partner

By: /s/ Shinya Yano
Name: Shinya Yano, Ph.D
Title: President and Chief Executive Officer

Signature Page to Second Amended and Restated Investors' Rights Agreement

INVESTORS:

CD-VENTURE GMBH

By: /s/ Christoph Boehringer
Name: Christoph Boehringer
Title: General Manager

Signature Page to Second Amended and Restated Investors' Rights Agreement

INVESTORS:

ALEXANDRIA EQUITIES, LLC,
a Delaware limited liability company

By: Alexandria Real Estate Equities, Inc.,
a Maryland corporation, managing member

By: /s/ Dean Shigenaga
Name: Dean Shigenaga
Title: CFO

INVESTORS:

/s/ E. Jeffrey Peierls
E. Jeffrey Peierls

/s/ Brian E. Peierls
Brian E. Peierls

Signed by E. Jeffrey Peierls, on behalf of the entities listed below, as trustee and/or authorized officer:

UD E.F. Peierls for Brian E. Peierls
UD E.F. Peierls for E. Jeffrey Peierls
UD J.N. Peierls for B.E. Peierls
UD J.N. Peierls for E.J. Peierls
UD E.S. Peierls for E.F. Peierls et al
UW J.N. Peierls for Brian E. Peierls
UW J.N. Peierls for E. Jeffrey Peierls
UW E.S. Peierls for Brian E. Peierls — Accumulation
UW E.S. Peierls for E. Jeffrey Peierls — Accumulation
The Peierls Foundation, Inc.
UD Ethel F. Peierls Charitable Lead Trust

/s/ E. Jeffrey Peierls
E. Jeffrey Peierls

Signature Page to Second Amended and Restated Investors' Rights Agreement

INVESTORS:

PETER AND CAROLYN LYNCH
Jt Ten with Rights of Survivorship

/s/ Peter S. Lynch
Peter S. Lynch

/s/ Carolyn A. Lynch
Carolyn A. Lynch

Signed by Peter S. Lynch, on behalf of the entities listed below, as trustee:

The Lynch Foundation u/a 07/14/88
Peter S. and Carolyn A. Lynch 1999 Unitrust u/a/ 12/28/99

/s/ Peter S. Lynch
Peter S. Lynch

Signed by Carolyn A. Lynch, on behalf of the entities listed below, as trustee:

Lynch Childrens Trust fbo Anne Lynch u/a 03/08/88
Lynch Childrens Trust fbo Elizabeth Lynch u/a 03/08/88
Lynch Childrens Trust fbo Mary Lynch u/a 03/08/88
Peter S. Lynch Charitable Lead Annuity u/a 03/27/96
Peter S. Lynch Charitable Lead Unitrust u/a 03/03/97

/s/ Carolyn A. Lynch

SCHEDULE A

INVESTORS

Name and Address	Number of Shares Held
Bessemer Venture Partners VII L.P. c/o Bessemer Venture Partners 1865 Palmer Avenue Suite 104 Larchmont, NY 10538 Tel. 914-833-5300 Transactions@bvp.com	1,280,000 shares of Series A Preferred Stock 800,000 shares of Series B Preferred Stock 42,667 shares of Series C Preferred Stock
Bessemer Venture Partners VII Institutional L.P. c/o Bessemer Venture Partners 1865 Palmer Avenue Suite 104 Larchmont, NY 10538 Tel. 914-833-5300 Transactions@bvp.com	560,000 shares of Series A Preferred Stock 350,000 shares of Series B Preferred Stock 18,667 shares of Series C Preferred Stock
BVP VII Special Opportunity Fund L.P. c/o Bessemer Venture Partners 1865 Palmer Avenue Suite 104 Larchmont, NY 10538 Tel. 914-833-5300 Transactions@bvp.com	2,160,000 shares of Series A Preferred Stock 1,350,000 shares of Series B Preferred Stock 71,999 shares of Series C Preferred Stock
MPM Bioventures V, L.P. The John Hancock Tower 200 Clarendon Street 54th floor Boston, MA 02116 Phone: 617-425-9200 Fax: 617-425-9201	4,000,000 shares of Series A Preferred Stock 2,500,000 shares of Series B Preferred Stock 266,666 shares of Series C Preferred Stock
Longwood Founders Fund, L.P. 800 Boylston St, Suite 1555 Boston, MA 02199 Phone: (617) 252-6922	4,000,000 shares of Series A Preferred Stock 3,500,000 shares of Series B Preferred Stock 444,444 shares of Series C Preferred Stock
CHP III, L.P. c/o Cardinal Partners 230 Nassau Street Princeton, NJ 08542 Phone: (609) 924-6452	4,000,000 shares of Series A Preferred Stock 2,500,000 shares of Series B Preferred Stock 444,444 shares of Series C Preferred Stock
Advanced Technology Ventures VIII, L.P. 1000 Winter Street Waltham, MA 02451	0 shares of Series A Preferred Stock 2,500,000 shares of Series B Preferred Stock 100,000 shares of Series C Preferred Stock
Eastern Capital Limited c/o Foreshore Corporate Services Ltd. Fourth Floor, Queensgate House 113 South Church Street PO Box 1994 George Town Grand Cayman KY1-1104 Cayman Islands Attn: Mark VanDevelde, Director	0 shares of Series A Preferred Stock 0 shares of Series B Preferred Stock 4,000,000 shares of Series C Preferred Stock
H & Q Healthcare Investors 2 Liberty Square, 9th Floor Boston, MA 02109	0 shares of Series A Preferred Stock 0 shares of Series B Preferred Stock 1,533,333 shares of Series C Preferred Stock

Fax: (617) 772-8577

H & Q Life Sciences Investors
2 Liberty Square, 9th Floor
Boston, MA 02109
Fax: (617) 772-8577

0 shares of Series A Preferred Stock
0 shares of Series B Preferred Stock
688,889 shares of Series C Preferred Stock

Astellas Venture Fund I LP
2882 San Hill Road, Suite 121
Menlo Park, CA 94025
Attn: Shinya Yano, Ph.D
Phone: (650) 926-0732
Fax: (650) 926-0740

0 shares of Series A Preferred Stock
1,000,000 shares of Series B Preferred Stock
71,111 shares of Series C Preferred Stock

CD-Ventures GmbH
Bergheimerstrasse 89 a
69115 Heidelberg

0 shares of Series A Preferred Stock
500,000 shares of Series B Preferred Stock
138,755 shares of Series C Preferred Stock

Name and Address

Number of Shares Held

Germany
Attn: Christoph Boehringer

Alexandria Equities, LLC
385 E. Colorado Blvd., Suite 299
Pasadena, CA 91101
Phone: (626) 578-0777
Fax: (626) 578-0770

0 shares of Series A Preferred Stock
250,000 shares of Series B Preferred Stock
44,444 shares of Series C Preferred Stock

E. Jeffrey Peierls
73 South Holman Way
Golden, CO 80401

0 shares of Series A Preferred Stock
57,400 shares of Series B Preferred Stock
44,000 shares of Series C Preferred Stock

Brian E. Peierls
7808 Harvestman Cove
Austin, TX 78731-1243

0 shares of Series A Preferred Stock
57,400 shares of Series B Preferred Stock
38,000 shares of Series C Preferred Stock

UD E.F. Peierls for Brian E. Peierls
c/o E. Jeffrey Peierls
73 South Holman Way
Golden, CO 80401

0 shares of Series A Preferred Stock
13,500 shares of Series B Preferred Stock
8,900 shares of Series C Preferred Stock

UD E.F. Peierls for E. Jeffrey Peierls
c/o E. Jeffrey Peierls
73 South Holman Way
Golden, CO 80401

0 shares of Series A Preferred Stock
13,500 shares of Series B Preferred Stock
8,900 shares of Series C Preferred Stock

UD J.N. Peierls for B.E. Peierls
c/o E. Jeffrey Peierls
73 South Holman Way
Golden, CO 80401

0 shares of Series A Preferred Stock
18,000 shares of Series B Preferred Stock
20,000 shares of Series C Preferred Stock

UD J.N Peierls for E.J. Peierls
c/o E. Jeffrey Peierls
73 South Holman Way
Golden, CO 80401

0 shares of Series A Preferred Stock
18,000 shares of Series B Preferred Stock
20,000 shares of Series C Preferred Stock

UD E.S. Peierls for E.F. Peierls et al
c/o E. Jeffrey Peierls
73 South Holman Way

0 shares of Series A Preferred Stock
0 shares of Series B Preferred Stock
16,000 shares of Series C Preferred Stock

Name and Address

Number of Shares Held

Golden, CO 80401

UW E.S. Peierls for Brian E. Peierls — Accumulation
c/o E. Jeffrey Peierls
73 South Holman Way
Golden, CO 80401

0 shares of Series A Preferred Stock
12,300 shares of Series B Preferred Stock
13,300 shares of Series C Preferred Stock

UW E.S. Peierls for E. Jeffrey Peierls — Accumulation
c/o E. Jeffrey Peierls

0 shares of Series A Preferred Stock
9,000 shares of Series B Preferred Stock

73 South Holman Way Golden, CO 80401	7,100 shares of Series C Preferred Stock
UW J.N. Peierls for Brian E. Peierls c/o E. Jeffrey Peierls 73 South Holman Way Golden, CO 80401	0 shares of Series A Preferred Stock 16,900 shares of Series B Preferred Stock 14,200 shares of Series C Preferred Stock
UW J.N. Peierls for E. Jeffrey Peierls c/o E. Jeffrey Peierls 73 South Holman Way Golden, CO 80401	0 shares of Series A Preferred Stock 16,900 shares of Series B Preferred Stock 14,200 shares of Series C Preferred Stock
The Peierls Foundation, Inc. c/o E. Jeffrey Peierls 73 South Holman Way Golden, CO 80401	0 shares of Series A Preferred Stock 424,400 shares of Series B Preferred Stock 289,000 shares of Series C Preferred Stock
UD Ethel F. Peierls Charitable Lead Trust c/o E. Jeffrey Peierls 73 South Holman Way Golden, CO 80401	0 shares of Series A Preferred Stock 42,700 shares of Series B Preferred Stock 37,700 shares of Series C Preferred Stock
Peter and Carolyn Lynch Jt. Ten with Rights of Survivorship 82 Devonshire Street, S4A Boston, MA 02109 Phone: (617) 563-3603	0 shares of Series A Preferred Stock 0 shares of Series B Preferred Stock 106,666 shares of Series C Preferred Stock
The Lynch Foundation u/a 07/14/88 82 Devonshire Street, S4A Boston, MA 02109	0 shares of Series A Preferred Stock 0 shares of Series B Preferred Stock 164,444 shares of Series C Preferred Stock

Name and Address	Number of Shares Held
Phone: (617) 563-3603	
Peter S. Lynch and Carolyn A. Lynch 1999 Unitrust u/a 12/28/99 82 Devonshire Street, S4A Boston, MA 02109 Phone: (617) 563-3603	0 shares of Series A Preferred Stock 0 shares of Series B Preferred Stock 151,111 shares of Series C Preferred Stock
Lynch Childrens Trust fbo Anne Lynch u/a 03/08/88 82 Devonshire Street, S4A Boston, MA 02109 Phone: (617) 563-3603	0 shares of Series A Preferred Stock 0 shares of Series B Preferred Stock 17,777 shares of Series C Preferred Stock
Lynch Childrens Trust fbo Elizabeth Lynch u/a 03/08/88 82 Devonshire Street, S4A Boston, MA 02109 Phone: (617) 563-3603	0 shares of Series A Preferred Stock 0 shares of Series B Preferred Stock 17,777 shares of Series C Preferred Stock
Lynch Childrens Trust fbo Mary Lynch u/a 03/08/88 82 Devonshire Street, S4A Boston, MA 02109 Phone: (617) 563-3603	0 shares of Series A Preferred Stock 0 shares of Series B Preferred Stock 17,777 shares of Series C Preferred Stock
Peter S. Lynch Charitable Lead Annuity u/a 3/27/96 82 Devonshire Street, S4A Boston, MA 02109 Phone: (617) 563-3603	0 shares of Series A Preferred Stock 0 shares of Series B Preferred Stock 31,111 shares of Series C Preferred Stock
Peter S. Lynch Charitable Lead Unitrust u/a 3/03/97 82 Devonshire Street, S4A Boston, MA 02109 Phone: (617) 563-3603	0 shares of Series A Preferred Stock 0 shares of Series B Preferred Stock 31,111 shares of Series C Preferred Stock
Lawrence H. Summers 207 Fisher Avenue Brookline, MA 02445	0 shares of Series A Preferred Stock 75,000 shares of Series B Preferred Stock 0 shares of Series C Preferred Stock

SCHEDULE B**KEY HOLDERS**

Name and Address	Number of Shares Held
Christoph Westphal 17 Hawes St. Brookline, MA 02446	2,200,000 shares of Common Stock
Rich Aldrich 26 Beech Rd. Brookline, MA 02446	1,900,000 shares of Common Stock
Michelle Dipp 505 Tremont St., Unit 702 Boston, MA 02116	600,000 shares of Common Stock
Piyush Gupta 2 Hawthorne Place, Apt. 9K Boston, MA 02114	1,550,000 shares of Common Stock
Satish Jindal 375 Atherton St. Milton, MA 02186	667,319 shares of Common Stock
Eric Lander 74R Fayerweather St. Cambridge, MA 02138	1,250,000 shares of Common Stock
Robert Weinberg 25 Copley St. Brookline, MA 02446	1,250,000 shares of Common Stock
Robert Forrester 346 Gay Street Westwood, MA 02090	448,000 shares of Common Stock

VERASTEM, INC.

2010 EQUITY INCENTIVE PLAN, AS AMENDED

ADOPTED BY THE BOARD OF DIRECTORS: NOVEMBER 3, 2010

APPROVED BY THE STOCKHOLDERS: NOVEMBER 3, 2010

TERMINATION DATE: NOVEMBER 3, 2020

1. GENERAL.

(a) **Eligible Stock Award Recipients.** The persons eligible to receive Stock Awards are Employees, Directors and Consultants.

(b) **Available Stock Awards.** The Plan provides for the grant of the following Stock Awards: (i) Incentive Stock Options, (ii) Nonstatutory Stock Options, (iii) Restricted Stock Awards, (iv) Restricted Stock Unit Awards, and (v) Stock Appreciation Rights.

(c) **Purpose.** The Company, by means of the Plan, seeks to secure and retain the services of the group of persons eligible to receive Stock Awards as set forth in Section 1(a), to provide incentives for such persons to exert maximum efforts for the success of the Company and any Affiliate, and to provide a means by which such eligible recipients may be given an opportunity to benefit from increases in value of the Common Stock through the granting of Stock Awards.

2. ADMINISTRATION.

(a) **Administration by Board.** The Board shall administer the Plan unless and until the Board delegates administration of the Plan to a Committee, as provided in Section 2(c).

(b) **Powers of Board.** The Board shall have the power, subject to, and within the limitations of, the express provisions of the Plan:

(i) To determine from time to time (A) which of the persons eligible under the Plan shall be granted Stock Awards; (B) when and how each Stock Award shall be granted; (C) what type or combination of types of Stock Award shall be granted; (D) the provisions of each Stock Award granted (which need not be identical), including the time or times when a person shall be permitted to receive cash or Common Stock pursuant to a Stock Award; (E) the number of shares of Common Stock with respect to which a Stock Award shall be granted to each such person; and (F) the Fair Market Value applicable to a Stock Award.

(ii) To construe and interpret the Plan and Stock Awards granted under it, and to establish, amend and revoke rules and regulations for administration of the Plan. The Board, in the exercise of this power, may correct any defect, omission or inconsistency in the Plan or in any Stock Award Agreement, in a manner and to the extent it shall deem necessary or expedient to make the Plan or Stock Award fully effective.

(iii) To settle all controversies regarding the Plan and Stock Awards granted under it.

(iv) To accelerate the time at which a Stock Award may first be exercised or the time during which a Stock Award or any part thereof will vest in accordance with the Plan, notwithstanding the provisions in the Stock Award stating the time at which it may first be exercised or the time during which it will vest.

(v) To suspend or terminate the Plan at any time. Suspension or termination of the Plan shall not impair rights and obligations under any Stock Award granted while the Plan is in effect except with the written consent of the affected Participant.

(vi) To amend the Plan in any respect the Board deems necessary or advisable, including, without limitation, amendments relating to Incentive Stock Options and certain nonqualified deferred compensation under Section 409A of the Code and/or to bring the Plan or Stock Awards granted under the Plan into compliance therewith, subject to the limitations, if any, of applicable law. However, except as provided in Section 9(a) relating to Capitalization Adjustments, to the extent required by applicable law, stockholder approval shall be required for any amendment of the Plan that either (i) materially increases the number of shares of Common Stock available for issuance under the Plan, (ii) materially expands the class of individuals eligible to receive Stock Awards under the Plan, (iii) materially increases the benefits accruing to Participants under the Plan or materially reduces the price at which shares of Common Stock may be issued or purchased under the Plan, (iv) materially extends the term of the Plan, or (v) expands the types of Stock Awards available for issuance under the Plan. Except as provided above, rights under any Stock Award granted before amendment of the Plan shall not be impaired by any amendment of the Plan unless (i) the Company requests the consent of the affected Participant, and (ii) such Participant consents in writing.

(vii) To submit any amendment to the Plan for stockholder approval, including, but not limited to, amendments to the Plan intended to satisfy the requirements of Section 422 of the Code regarding Incentive Stock Options.

(viii) To approve forms of Stock Award Agreements for use under the Plan and to amend the terms of any one or more Stock Awards, including, but not limited to, amendments to provide terms more favorable than previously provided in the Stock Award Agreement, subject to any specified limits in the Plan that are not subject to Board discretion; *provided however*, that, the rights under any Stock Award shall not be impaired by any such amendment unless (i) the Company requests the consent of the affected Participant, and (ii) such Participant consents in writing. Notwithstanding the foregoing, subject to the limitations of applicable law, if any, and without the affected Participant's consent, the Board may amend the terms of any one or more Stock Awards if necessary to maintain the qualified status of the Stock Award as an Incentive Stock Option or to bring the Stock Award into compliance with Section 409A of the Code and the related guidance thereunder.

(ix) Generally, to exercise such powers and to perform such acts as the Board deems necessary or expedient to promote the best interests of the Company and that are not in conflict with the provisions of the Plan or Stock Awards.

(x) To adopt such procedures and sub-plans as are necessary or appropriate to permit participation in the Plan by Employees, Directors or Consultants who are foreign nationals or employed outside the United States.

(xi) To effect, at any time and from time to time, with the consent of any adversely affected Participant, (1) the reduction of the exercise price or strike price of any outstanding Option or Stock Appreciation Right under the Plan, (2) the cancellation of any outstanding Option or Stock Appreciation Right under the Plan and the grant in substitution therefor of (A) a new Option under the Plan or another equity plan of the Company covering the same or a different number of shares of Common Stock, (B) a Restricted Stock Award, (C) Restricted Stock Unit Award, (D) cash and/or (E) other valuable consideration (as determined by the Board, in its sole discretion), or (3) any other action that is treated as a repricing under generally accepted accounting principles; *provided, however*, that no such reduction or cancellation may be effected if it is determined, in the Company's sole discretion, that such reduction or cancellation would result in any such outstanding Option becoming subject to the requirements of Section 409A of the Code.

(c) **Delegation to Committee.** The Board may delegate some or all of the administration of the Plan to a Committee or Committees. If administration of the Plan is delegated to a Committee, the Committee shall have, in connection with the administration of the Plan, the powers theretofore possessed by the Board that have been delegated to the Committee, including the power to delegate to a subcommittee of the Committee any of the administrative powers the Committee is authorized to exercise (and references in this Plan to the Board shall thereafter be to the Committee or subcommittee), subject, however, to such resolutions, not inconsistent with the provisions of the Plan, as may be adopted from time to time by the Board. The Board may retain the authority to concurrently administer the Plan with the Committee and may, at any time, revert in the Board some or all of the powers previously delegated.

(d) **Delegation to an Officer.** The Board may delegate to one or more Officers of the Company the authority to do one or both of the following: (i) designate Officers and Employees of the Company or any of its Subsidiaries to be recipients of Options (and, to the extent permitted by applicable law, other Stock Awards) and the terms thereof, and (ii) determine the number of shares of Common Stock to be subject to such Stock Awards granted to such Officers and Employees; *provided, however*, that the Board resolutions regarding such delegation shall specify the total number of shares of Common Stock that may be subject to the Stock Awards granted by such Officer and that such Officer may not grant a Stock Award to himself or herself. Notwithstanding the foregoing, the Board may not delegate authority to an Officer to determine the Fair Market Value of the Common Stock pursuant to Section 13(t) below.

(e) **Effect of Board's Decision.** All determinations, interpretations and constructions made by the Board in good faith shall not be subject to review by any person and shall be final, binding and conclusive on all persons.

3. SHARES SUBJECT TO THE PLAN.

(a) **Share Reserve.** Subject to Section 9(a) relating to Capitalization Adjustments and the provisions of this Section 3(a), the aggregate number of shares of Common Stock that

may be issued pursuant to Stock Awards after the Effective Date shall not exceed One Million Nine Hundred Ninety Nine Thousand Three Hundred Forty Eight (1,999,348) shares. The limitation in this Section 3(a) is a limitation solely in the number of shares of Common Stock that may be issued pursuant to the Plan and is not a limitation on the granting of Stock Awards (except as provided in Section 7(a)).

(b) **Reversion of Shares to the Share Reserve.** If any shares of Common Stock issued pursuant to a Stock Award are forfeited back to the Company because of the failure to meet a contingency or condition required to vest such shares in the Participant, then the shares which are forfeited shall revert to and again become available for issuance under the Plan. Also, any shares reacquired by the Company pursuant to Section 8(g) or as consideration for the exercise of an Option shall again become available for issuance under the Plan. Furthermore, if a Stock Award (i) expires or otherwise terminates without having been exercised in full or (ii) is settled in cash (i.e., the holder of the Stock Award receives cash rather than stock), such expiration, termination or settlement shall not reduce (or otherwise offset) the number of shares of Common Stock that may be issued pursuant to the Plan. Notwithstanding the provisions of this Section 3(b), any such shares shall not be subsequently issued pursuant to the exercise of Incentive Stock Options.

(c) **Incentive Stock Option Limit.** Notwithstanding anything to the contrary in this Section 3, but subject to the provisions of Section 9(a) relating to Capitalization Adjustments and the shares limits established in Section 3(a), the aggregate maximum number of shares of Common Stock that may be issued pursuant to the exercise of Incentive Stock Options shall be One Million Nine Hundred Ninety Nine Thousand Three Hundred Forty Eight (1,999,348) shares.

(d) **Source of Shares.** The stock issuable under the Plan shall be shares of authorized but unissued or reacquired Common Stock, including shares repurchased by the Company on the open market.

4. ELIGIBILITY.

(a) **Eligibility for Specific Stock Awards.** Incentive Stock Options may be granted only to employees of the Company or a "parent corporation" or "subsidiary corporation" thereof (as such terms are defined in Sections 424(e) and (f) of the Code). Stock Awards other than Incentive Stock Options may be granted to Employees, Directors and Consultants; *provided, however*, Nonstatutory Stock Options and Stock Appreciation rights may not be granted to Employees, Directors and Consultants who are providing Continuous Service only to any "parent" of the Company, as such term is defined in Rule 405, unless the stock underlying such Stock Awards is treated as "service recipient stock" under Section 409A of the Code because the Stock Awards are granted pursuant to a corporate transaction (such as a spin off transaction) or unless such Stock Awards comply with the distribution requirements of Section 409A of the Code.

(b) **Ten Percent Stockholders.** A Ten Percent Stockholder shall not be granted an Incentive Stock Option unless the exercise price of such Option is at least one hundred ten

percent (110%) of the Fair Market Value of the Common Stock on the date of grant and the Option is not exercisable after the expiration of five (5) years from the date of grant.

(c) **Consultants.** A Consultant shall not be eligible for the grant of a Stock Award if, at the time of grant, either the offer or the sale of the Company's securities to such Consultant is not exempt under Rule 701 of the Securities Act ("**Rule 701**") because of the nature of the services that the Consultant is providing to the Company, because the Consultant is not a natural person, or because of any other provision of Rule 701, unless the Company determines that such grant need not comply with the requirements of Rule 701 and will satisfy another exemption under the Securities Act as well as comply with the securities laws of all other relevant jurisdictions.

5. OPTION PROVISIONS.

Each Option shall be in such form and shall contain such terms and conditions as the Board shall deem appropriate. All Options shall be separately designated Incentive Stock Options or Nonstatutory Stock Options at the time of grant, and, if certificates are issued, a separate certificate or certificates shall be issued for shares of Common Stock purchased on exercise of each type of Option. If an Option is not specifically designated as an Incentive Stock Option, then the Option shall be a Nonstatutory Stock Option. The provisions of separate Options need not be identical; *provided, however*, that each Option Agreement shall include (through incorporation of provisions hereof by reference in the Option Agreement or otherwise) the substance of each of the following provisions:

(a) **Term.** Subject to the provisions of Section 4(b) regarding Ten Percent Stockholders, no Option shall be exercisable after the expiration of ten (10) years from the date of its grant or such shorter period specified in the Option Agreement.

(b) **Exercise Price.** Subject to the provisions of Section 4(b) regarding Incentive Stock Options granted to Ten Percent Stockholders, the exercise price of each Option shall be not less than one hundred percent (100%) of the Fair Market Value of the Common Stock subject to the Option on the date the Option is granted. Notwithstanding the foregoing, an Option may be granted with an exercise price lower than one hundred percent (100%) of the Fair Market Value of the Common Stock subject to the Option if such Option is granted pursuant to an assumption or substitution for another option in a manner consistent with the provisions of Section 424(a) of the Code (whether or not such options are Incentive Stock Options).

(c) **Consideration.** The purchase price of Common Stock acquired pursuant to the exercise of an Option shall be paid, to the extent permitted by applicable law and as determined by the Board in its sole discretion, by any combination of the methods of payment set forth below. The Board shall have the authority to grant Options that do not permit all of the following methods of payment (or otherwise restrict the ability to use certain methods) and to grant Options that require the consent of the Company to utilize a particular method of payment. The permitted methods of payment are as follows:

(i) by cash, check, bank draft or money order payable to the Company;

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(ii) pursuant to a program developed under Regulation T as promulgated by the Federal Reserve Board that, prior to the issuance of the stock subject to the Option, results in either the receipt of cash (or check) by the Company or the receipt of irrevocable instructions to pay the aggregate exercise price to the Company from the sales proceeds;

(iii) by delivery to the Company (either by actual delivery or attestation) of shares of Common Stock;

(iv) if the Option is a Nonstatutory Stock Option, by a "net exercise" arrangement pursuant to which the Company will reduce the number of shares of Common Stock issued upon exercise by the largest whole number of shares with a Fair Market Value that does not exceed the aggregate exercise price; *provided, however*, that the Company shall accept a cash or other payment from the Participant to the extent of any remaining balance of the aggregate exercise price not satisfied by such reduction in the number of whole shares to be issued; *provided, further*, that shares of Common Stock will no longer be outstanding under an Option and will not be exercisable thereafter to the extent that (A) shares are used to pay the exercise price pursuant to the "net exercise," (B) shares are delivered to the Participant as a result of such exercise, and (C) shares are withheld to satisfy tax withholding obligations;

(v) according to a deferred payment or similar arrangement with the Optionholder; *provided, however*, that interest shall compound at least annually and shall be charged at the minimum rate of interest necessary to avoid (A) the imputation of interest income to the Company and compensation income to the Optionholder under any applicable provisions of the Code, and (B) the classification of the Option as a liability for financial accounting purposes; or

(vi) in any other form of legal consideration that may be acceptable to the Board.

(d) **Transferability of Options.** The Board may, in its sole discretion, impose such limitations on the transferability of Options as the Board shall determine. In the absence of such a determination by the Board to the contrary, the following restrictions on the transferability of Options shall apply:

(i) **Restrictions on Transfer.** An Option shall not be transferable except by will or by the laws of descent and distribution and shall be exercisable during the lifetime of the Optionholder only by the Optionholder; *provided, however*, that the Board may, in its sole discretion, permit transfer of the Option to such extent as permitted by Rule 701 of the Securities Act at the time of the grant of the Option and in a manner consistent with applicable tax and securities laws upon the Optionholder's request.

(ii) **Domestic Relations Orders.** Notwithstanding the foregoing, an Option may be transferred pursuant to a domestic relations order, *provided, however*, that an Incentive Stock Option may be deemed to be a Nonstatutory Stock Option as a result of such transfer.

(iii) **Beneficiary Designation.** Notwithstanding the foregoing, the Optionholder may, by delivering written notice to the Company, in a form provided by or otherwise satisfactory to the Company, designate a third party who, in the event of the death of

the Optionholder, shall thereafter be the beneficiary of an Option with the right to exercise the Option and receive the Common Stock or other consideration resulting from the Option exercise.

(e) Vesting of Options Generally. The total number of shares of Common Stock subject to an Option may vest and therefore become exercisable in periodic installments that may or may not be equal. The Option may be subject to such other terms and conditions on the time or times when it may or may not be exercised (which may be based on the satisfaction of performance goals or other criteria) as the Board may deem appropriate. The vesting provisions of individual Options may vary. The provisions of this Section 5(e) are subject to any Option provisions governing the minimum number of shares of Common Stock as to which an Option may be exercised.

(f) Termination of Continuous Service. Except as otherwise provided in the applicable Option Agreement or other agreement between the Optionholder and the Company, in the event that an Optionholder's Continuous Service terminates (other than for Cause or upon the Optionholder's death or Disability), the Optionholder may exercise his or her Option (to the extent that the Optionholder was entitled to exercise such Option as of the date of termination of Continuous Service) but only within such period of time ending on the earlier of (i) the date three (3) months following the termination of the Optionholder's Continuous Service (or such longer or shorter period specified in the Option Agreement), or (ii) the expiration of the term of the Option as set forth in the Option Agreement. If, after termination of Continuous Service, the Optionholder does not exercise his or her Option within the time specified herein or in the Option Agreement (as applicable), the Option shall terminate.

(g) Extension of Termination Date. Except as otherwise provided in the applicable Option Agreement or other agreement between the Optionholder and the Company, if the exercise of the Option following the termination of the Optionholder's Continuous Service (other than for Cause or upon the Optionholder's death or Disability) would be prohibited at any time solely because the issuance of shares of Common Stock would violate the registration requirements under the Securities Act, then the Option shall terminate on the earlier of (i) the expiration of a period of three (3) months after the termination of the Optionholder's Continuous Service during which the exercise of the Option would not be in violation of such registration requirements, or (ii) the expiration of the term of the Option as set forth in the Option Agreement.

(h) Disability of Optionholder. Except as otherwise provided in the applicable Option Agreement or other agreement between the Optionholder and the Company, in the event that an Optionholder's Continuous Service terminates as a result of the Optionholder's Disability, the Optionholder may exercise his or her Option (to the extent that the Optionholder was entitled to exercise such Option as of the date of termination of Continuous Service), but only within such period of time ending on the earlier of (i) the date twelve (12) months following such termination of Continuous Service (or such longer or shorter period specified in the Option Agreement), or (ii) the expiration of the term of the Option as set forth in the Option Agreement. If, after termination of Continuous Service, the Optionholder does not exercise his or her Option within the time specified herein or in the Option Agreement (as applicable), the Option shall terminate.

(i) Death of Optionholder. Except as otherwise provided in the applicable Option Agreement or other agreement between the Optionholder and the Company, in the event that (i) an Optionholder's Continuous Service terminates as a result of the Optionholder's death, or (ii) the Optionholder dies within the period (if any) specified in the Option Agreement after the termination of the Optionholder's Continuous Service for a reason other than death, then the Option may be exercised (to the extent the Optionholder was entitled to exercise such Option as of the date of death) by the Optionholder's estate, by a person who acquired the right to exercise the Option by bequest or inheritance or by a person designated as the beneficiary of the Option upon the Optionholder's death, but only within the period ending on the earlier of (i) the date eighteen (18) months following the date of death (or such longer or shorter period specified in the Option Agreement), or (ii) the expiration of the term of such Option as set forth in the Option Agreement. If, after the Optionholder's death, the Option is not exercised within the time specified herein or in the Option Agreement (as applicable), the Option shall terminate. If the Optionholder designates a third party beneficiary of the Option in accordance with Section 5(d)(iii), then upon the death of the Optionholder such designated beneficiary shall have the sole right to exercise the Option and receive the Common Stock or other consideration resulting from the Option exercise.

(j) Termination for Cause. Except as explicitly provided otherwise in an Optionholder's Option Agreement, in the event that an Optionholder's Continuous Service is terminated for Cause, the Option shall terminate upon the termination date of such Optionholder's Continuous Service, and the Optionholder shall be prohibited from exercising his or her Option from and after the time of such termination of Continuous Service.

(k) Non-Exempt Employees. No Option granted to an Employee that is a non-exempt employee for purposes of the Fair Labor Standards Act of 1938, as amended, shall be first exercisable for any shares of Common Stock until at least six months following the date of grant of the Option. Notwithstanding the foregoing, consistent with the provisions of the Worker Economic Opportunity Act, in the event of the Participant's death or Disability, upon a Corporate Transaction or a Change in Control in which the vesting of such Options accelerates, or upon the Participant's retirement (as such term may be defined in the Participant's Stock Award Agreement or in another applicable agreement or in accordance with the Company's then current employment policies and guidelines) any such vested Options may be exercised earlier than six months following the date of grant. The foregoing provision is intended to operate so that any income derived by a non-exempt employee in connection with the exercise or vesting of an Option will be exempt from his or her regular rate of pay.

(l) Early Exercise. The Option may, but need not, include a provision whereby the Optionholder may elect at any time before the Optionholder's Continuous Service terminates to exercise the Option as to any part or all of the shares of Common Stock subject to the Option prior to the full vesting of the Option. Any unvested shares of Common Stock so purchased may be subject to a repurchase option in favor of the Company or to any other restriction the Board determines to be appropriate. The Company shall not be required to exercise its repurchase option until at least six (6) months (or such longer or shorter period of time required to avoid classification of the Option as a liability for financial accounting purposes) have elapsed following exercise of the Option unless the Board otherwise specifically provides in the Option Agreement.

(m) **Right of Repurchase.** The Option may include a provision whereby the Company may elect to repurchase all or any part of the vested shares of Common Stock acquired by the Optionholder pursuant to the exercise of the Option.

(n) **Right of First Refusal.** The Option may include a provision whereby the Company may elect to exercise a right of first refusal following receipt of notice from the Optionholder of the intent to transfer all or any part of the shares of Common Stock received upon the exercise of the Option. Except as expressly provided in this Section 5(n) or in the Stock Award Agreement for the Option, such right of first refusal shall otherwise comply with any applicable provisions of the Bylaws of the Company.

6. PROVISIONS OF STOCK AWARDS OTHER THAN OPTIONS.

(a) **Restricted Stock Awards.** Each Restricted Stock Award Agreement shall be in such form and shall contain such terms and conditions as the Board shall deem appropriate. To the extent consistent with the Company's Bylaws, at the Board's election, shares of Common Stock may be (x) held in book entry form subject to the Company's instructions until any restrictions relating to the Restricted Stock Award lapse; or (y) evidenced by a certificate, which certificate shall be held in such form and manner as determined by the Board. The terms and conditions of Restricted Stock Award Agreements may change from time to time, and the terms and conditions of separate Restricted Stock Award Agreements need not be identical; *provided, however*, that each Restricted Stock Award Agreement shall include (through incorporation of the provisions hereof by reference in the agreement or otherwise) the substance of each of the following provisions:

(i) **Consideration.** A Restricted Stock Award may be awarded in consideration for (A) past or future services actually or to be rendered to the Company or an Affiliate, or (B) any other form of legal consideration that may be acceptable to the Board in its sole discretion and permissible under applicable law.

(ii) **Vesting.** Shares of Common Stock awarded under the Restricted Stock Award Agreement may be subject to forfeiture to the Company in accordance with a vesting schedule to be determined by the Board.

(iii) **Termination of Participant's Continuous Service.** In the event a Participant's Continuous Service terminates, the Company may receive via a forfeiture condition, any or all of the shares of Common Stock held by the Participant which have not vested as of the date of termination of Continuous Service under the terms of the Restricted Stock Award Agreement.

(iv) **Transferability.** Rights to acquire shares of Common Stock under the Restricted Stock Award Agreement shall be transferable by the Participant only upon such terms and conditions as are set forth in the Restricted Stock Award Agreement, as the Board shall determine in its sole discretion, so long as Common Stock awarded under the Restricted Stock Award Agreement remains subject to the terms of the Restricted Stock Award Agreement.

(b) **Restricted Stock Unit Awards.** Each Restricted Stock Unit Award Agreement shall be in such form and shall contain such terms and conditions as the Board shall deem

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appropriate. The terms and conditions of Restricted Stock Unit Award Agreements may change from time to time, and the terms and conditions of separate Restricted Stock Unit Award Agreements need not be identical, *provided, however*, that each Restricted Stock Unit Award Agreement shall include (through incorporation of the provisions hereof by reference in the Agreement or otherwise) the substance of each of the following provisions:

(i) **Consideration.** At the time of grant of a Restricted Stock Unit Award, the Board will determine the consideration, if any, to be paid by the Participant upon delivery of each share of Common Stock subject to the Restricted Stock Unit Award. The consideration to be paid (if any) by the Participant for each share of Common Stock subject to a Restricted Stock Unit Award may be paid in any form of legal consideration that may be acceptable to the Board in its sole discretion and permissible under applicable law.

(ii) **Vesting.** At the time of the grant of a Restricted Stock Unit Award, the Board may impose such restrictions or conditions to the vesting of the Restricted Stock Unit Award as it, in its sole discretion, deems appropriate.

(iii) **Payment.** A Restricted Stock Unit Award may be settled by the delivery of shares of Common Stock, their cash equivalent, any combination thereof or in any other form of consideration, as determined by the Board and contained in the Restricted Stock Unit Award Agreement.

(iv) **Additional Restrictions.** At the time of the grant of a Restricted Stock Unit Award, the Board, as it deems appropriate, may impose such restrictions or conditions that delay the delivery of the shares of Common Stock (or their cash equivalent) subject to a Restricted Stock Unit Award to a time after the vesting of such Restricted Stock Unit Award.

(v) **Dividend Equivalents.** Dividend equivalents may be credited in respect of shares of Common Stock covered by a Restricted Stock Unit Award, as determined by the Board and contained in the Restricted Stock Unit Award Agreement. At the sole discretion of the Board, such dividend equivalents may be converted into additional shares of Common Stock covered by the Restricted Stock Unit Award in such manner as determined by the Board. Any additional shares covered by the Restricted Stock Unit Award credited by reason of such dividend equivalents will be subject to all the terms and conditions of the underlying Restricted Stock Unit Award Agreement to which they relate.

(vi) **Termination of Participant's Continuous Service.** Except as otherwise provided in the applicable Restricted Stock Unit Award Agreement, such portion of the Restricted Stock Unit Award that has not vested will be forfeited upon the Participant's termination of Continuous Service.

(c) **Stock Appreciation Rights.** Each Stock Appreciation Right Agreement shall be in such form and shall contain such terms and conditions as the Board shall deem appropriate. Stock Appreciation Rights may be granted as stand-alone Stock Awards or in tandem with other Stock Awards. The terms and conditions of Stock Appreciation Right Agreements may change from time to time, and the terms and conditions of separate Stock Appreciation Right Agreements need not be identical; *provided, however*, that each Stock Appreciation Right

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Agreement shall include (through incorporation of the provisions hereof by reference in the agreement or otherwise) the substance of each of the following provisions:

(i) **Term.** No Stock Appreciation Right shall be exercisable after the expiration often (10) years from the date of grant or such shorter period specified in the Stock Appreciation Right Agreement.

(ii) **Strike Price.** Each Stock Appreciation Right will be denominated in shares of Common Stock equivalents. The strike price of each Stock Appreciation Right granted as a stand-alone or tandem Stock Award shall not be less than one hundred percent (100%) of the Fair Market Value of the Common Stock equivalents subject to the Stock Appreciation Right on the date of grant.

(iii) **Calculation of Appreciation.** The appreciation distribution payable on the exercise of a Stock Appreciation Right will be not greater than an amount equal to the excess of (A) the aggregate Fair Market Value (on the date of the exercise of the Stock Appreciation Right) of a number of shares of Common Stock equal to the number of shares of Common Stock equivalents in which the Participant is vested under such Stock Appreciation Right, and with respect to which the Participant is exercising the Stock Appreciation Right on such date, over (B) the strike price that will be determined by the Board on the date of grant.

(iv) **Vesting.** At the time of the grant of a Stock Appreciation Right, the Board may impose such restrictions or conditions to the vesting of such Stock Appreciation Right as it, in its sole discretion, deems appropriate.

(v) **Exercise.** To exercise any outstanding Stock Appreciation Right, the Participant must provide written notice of exercise to the Company in compliance with the provisions of the Stock Appreciation Right Agreement evidencing such Stock Appreciation Right.

(vi) **Non-Exempt Employees.** No Stock Appreciation Right granted to an Employee that is a non-exempt employee for purposes of the Fair Labor Standards Act of 1938, as amended, shall be first exercisable for any shares of Common Stock until at least six months following the date of grant of the Stock Appreciation Right. The foregoing provision is intended to operate so that any income derived by a non-exempt employee in connection with the exercise of a Stock Appreciation Right will be exempt from his or her regular rate of pay.

(vii) **Payment.** The appreciation distribution in respect to a Stock Appreciation Right may be paid in Common Stock, in cash, in any combination of the two or in any other form of consideration, as determined by the Board and contained in the Stock Appreciation Right Agreement evidencing such Stock Appreciation Right.

(viii) **Termination of Continuous Service.** Except as otherwise provided in the applicable Stock Appreciation Right Agreement or other agreement between the Participant and the Company, in the event that a Participant's Continuous Service terminates (other than for Cause or upon the Participant's death or Disability), the Participant may exercise his or her Stock Appreciation Right (to the extent that the Participant was entitled to exercise such Stock Appreciation Right as of the date of termination of Continuous Service) but only within such

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period of time ending on the earlier of (A) the date three (3) months following the termination of the Participant's Continuous Service (or such longer or shorter period specified in the Stock Appreciation Right Agreement), or (B) the expiration of the term of the Stock Appreciation Right as set forth in the Stock Appreciation Right Agreement. If, after termination of Continuous Service, the Participant does not exercise his or her Stock Appreciation Right within the time specified herein or in the Stock Appreciation Right Agreement (as applicable), the Stock Appreciation Right shall terminate.

(ix) **Disability of Participant.** Except as otherwise provided in the applicable Stock Appreciation Right Agreement or other agreement between the Participant and the Company, in the event that a Participant's Continuous Service terminates as a result of the Participant's Disability, the Participant may exercise his or her Stock Appreciation Right (to the extent that the Participant was entitled to exercise such Stock Appreciation Right as of the date of termination of Continuous Service), but only within such period of time ending on the earlier of (A) the date twelve (12) months following such termination of Continuous Service (or such longer or shorter period specified in the Stock Appreciation Right Agreement), or (B) the expiration of the term of the Stock Appreciation Right as set forth in the Stock Appreciation Right Agreement. If, after termination of Continuous Service, the Participant does not exercise his or her Stock Appreciation Right within the time specified herein or in the Stock Appreciation Right Agreement (as applicable), the Stock Appreciation Right shall terminate.

(x) **Death of Participant.** Except as otherwise provided in the applicable Stock Appreciation Right Agreement or other agreement between the Participant and the Company, in the event that (i) a Participant's Continuous Service terminates as a result of the Participant's death, or (ii) the Participant dies within the period (if any) specified in the Stock Appreciation Right Agreement after the termination of the Participant's Continuous Service for a reason other than death, then the Stock Appreciation Right may be exercised (to the extent the Participant was entitled to exercise such Stock Appreciation Right as of the date of death) by the Participant's estate, by a person who acquired the right to exercise the Stock Appreciation Right by bequest or inheritance or by a person designated as the beneficiary of the Stock Appreciation Right upon the Participant's death, but only within the period ending on the earlier of (i) the date eighteen (18) months following the date of death (or such longer or shorter period specified in the Stock Appreciation Right Agreement), or (ii) the expiration of the term of such Stock Appreciation Right as set forth in the Stock Appreciation Right Agreement. If, after the Participant's death, the Stock Appreciation Right is not exercised within the time specified herein or in the Stock Appreciation Right Agreement (as applicable), the Stock Appreciation Right shall terminate.

(xi) **Termination for Cause.** Except as explicitly provided otherwise in an Participant's Stock Appreciation Right Agreement, in the event that a Participant's Continuous Service is terminated for Cause, the Stock Appreciation Right shall terminate upon the termination date of such Participant's Continuous Service, and the Participant shall be prohibited from exercising his or her Stock Appreciation Right from and after the time of such termination of Continuous Service.

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7. COVENANTS OF THE COMPANY.

(a) **Availability of Shares.** During the terms of the Stock Awards, the Company shall keep available at all times the number of shares of Common Stock reasonably required to satisfy such Stock Awards.

(b) **Securities Law Compliance.** The Company shall seek to obtain from each regulatory commission or agency having jurisdiction over the Plan such authority as may be required to grant Stock Awards and to issue and sell shares of Common Stock upon exercise of the Stock Awards; *provided, however,* that this undertaking shall not require the Company to register under the Securities Act the Plan, any Stock Award or any Common Stock issued or issuable pursuant to any such Stock Award. If, after reasonable efforts, the Company is unable to obtain from any such regulatory commission or agency the authority that counsel for the Company deems necessary for the lawful issuance and sale of Common Stock under the Plan, the Company shall be relieved from any liability for failure to issue and sell Common Stock upon exercise of such Stock Awards unless and until such authority is obtained. A Participant shall not be eligible for the grant of a Stock Award or the subsequent issuance of Common Stock pursuant to the Stock Award if such grant or issuance would be in violation of any applicable securities law.

(c) **No Obligation to Notify.** The Company shall have no duty or obligation to any holder of a Stock Award to advise such holder as to the time or manner of exercising such Stock Award. Furthermore, the Company shall have no duty or obligation to warn or otherwise advise such holder of a pending termination or expiration of a Stock Award or a possible period in which the Stock Award may not be exercised. The Company has no duty or obligation to minimize the tax consequences of a Stock Award to the holder of such Stock Award.

8. MISCELLANEOUS.

(a) **Use of Proceeds from Sales of Common Stock.** Proceeds from the sale of shares of Common Stock pursuant to Stock Awards shall constitute general funds of the Company.

(b) **Corporate Action Constituting Grant of Stock Awards.** Corporate action constituting a grant by the Company of a Stock Award to any Participant shall be deemed completed as of the date of such corporate action, unless otherwise determined by the Board, regardless of when the instrument, certificate, or letter evidencing the Stock Award is communicated to, or actually received or accepted by, the Participant.

(c) **Stockholder Rights.** No Participant shall be deemed to be the holder of, or to have any of the rights of a holder with respect to, any shares of Common Stock subject to such Stock Award unless and until such Participant has satisfied all requirements for exercise of the Stock Award pursuant to its terms and the Participant shall not be deemed to be a stockholder of record until the issuance of the Common Stock pursuant to such exercise has been entered into the books and records of the Company.

(d) **No Employment or Other Service Rights.** Nothing in the Plan, any Stock Award Agreement or any other instrument executed thereunder or in connection with any Stock

Award granted pursuant thereto shall confer upon any Participant any right to continue to serve the Company or an Affiliate in the capacity in effect at the time the Stock Award was granted or shall affect the right of the Company or an Affiliate to terminate (i) the employment of an Employee with or without notice and with or without cause, (ii) the service of a Consultant pursuant to the terms of such Consultant's agreement with the Company or an Affiliate, or (iii) the service of a Director pursuant to the Bylaws of the Company or an Affiliate, and any applicable provisions of the corporate law of the state in which the Company or the Affiliate is incorporated, as the case may be.

(e) **Incentive Stock Option \$100,000 Limitation.** To the extent that the aggregate Fair Market Value (determined at the time of grant) of Common Stock with respect to which Incentive Stock Options are exercisable for the first time by any Optionholder during any calendar year (under all plans of the Company and any Affiliates) exceeds one hundred thousand dollars (\$100,000), the Options or portions thereof that exceed such limit (according to the order in which they were granted) shall be treated as Nonstatutory Stock Options, notwithstanding any contrary provision of the applicable Option Agreement(s).

(f) **Investment Assurances.** The Company may require a Participant, as a condition of exercising or acquiring Common Stock under any Stock Award, (i) to give written assurances satisfactory to the Company as to the Participant's knowledge and experience in financial and business matters and/or to employ a purchaser representative reasonably satisfactory to the Company who is knowledgeable and experienced in financial and business matters and that he or she is capable of evaluating, alone or together with the purchaser representative, the merits and risks of exercising the Stock Award; and (ii) to give written assurances satisfactory to the Company stating that the Participant is acquiring Common Stock subject to the Stock Award for the Participant's own account and not with any present intention of selling or otherwise distributing the Common Stock. The foregoing requirements, and any assurances given pursuant to such requirements, shall be inoperative if (x) the issuance of the shares upon the exercise or acquisition of Common Stock under the Stock Award has been registered under a then currently effective registration statement under the Securities Act, or (y) as to any particular requirement, a determination is made by counsel for the Company that such requirement need not be met in the circumstances under the then applicable securities laws. The Company may, upon advice of counsel to the Company, place legends on stock certificates issued under the Plan as such counsel deems necessary or appropriate in order to comply with applicable securities laws, including, but not limited to, legends restricting the transfer of the Common Stock.

(g) **Withholding Obligations.** Unless prohibited by the terms of a Stock Award Agreement, the Company may, in its sole discretion, satisfy any federal, state or local tax withholding obligation relating to a Stock Award by any of the following means (in addition to the Company's right to withhold from any compensation paid to the Participant by the Company) or by a combination of such means: (i) causing the Participant to tender a cash payment; (ii) withholding shares of Common Stock from the shares of Common Stock issued or otherwise issuable to the Participant in connection with the Stock Award; *provided, however,* that no shares of Common Stock are withheld with a value exceeding the minimum amount of tax required to be withheld by law (or such lower amount as may be necessary to avoid classification of the Stock Award as a liability for financial accounting purposes); (iii) withholding payment from

any amounts otherwise payable to the Participant; (iv) withholding cash from a Stock Award settled in cash; or (v) by such other method as may be set forth in the Stock Award Agreement.

(h) Electronic Delivery. Any reference herein to a “written” agreement or document shall include any agreement or document delivered electronically or posted on the Company’s intranet.

(i) Deferrals. To the extent permitted by applicable law, the Board, in its sole discretion, may determine that the delivery of Common Stock or the payment of cash, upon the exercise, vesting or settlement of all or a portion of any Stock Award may be deferred and may establish programs and procedures for deferral elections to be made by Participants. Deferrals by Participants will be made in accordance with Section 409A of the Code. Consistent with Section 409A of the Code, the Board may provide for distributions while a Participant is still an employee. The Board is authorized to make deferrals of Stock Awards and determine when, and in what annual percentages, Participants may receive payments, including lump sum payments, following the Participant’s termination of employment or retirement, and implement such other terms and conditions consistent with the provisions of the Plan and in accordance with applicable law.

(j) Compliance with Section 409A. To the extent applicable, the Plan and Stock Award Agreements shall be interpreted in accordance with Section 409A of the Code. Notwithstanding any provision of the Plan to the contrary, in the event that following the Effective Date the Board determines that any Stock Award may be subject to Section 409A of the Code, the Board may adopt such amendments to the applicable Stock Award Agreement or adopt other policies and procedures, or take any other actions, that the Board determines are necessary or appropriate to (1) exempt the Stock Award from Section 409A of the Code and/or preserve the intended tax treatment of the benefits provided with respect to the Stock Award, or (2) comply with the requirements of Section 409 A of the Code.

(k) Compliance with Exemption Provided by Rule 12h-1(f) If: (i) the aggregate of the number of Optionholders and the number of holders of all other outstanding compensatory employee stock options to purchase shares of Common Stock equals or exceeds five hundred (500), and (ii) the assets of the Company at the end of the Company’s most recently completed fiscal year exceed \$10 million, then the following restrictions shall apply during any period during which the Company does not have a class of its securities registered under Section 12 of the Exchange Act and is not required to file reports under Section 15(d) of the Exchange Act: (A) the Options and, prior to exercise, the shares of Common Stock acquired upon exercise of the Options may not be transferred until the Company is no longer relying on the exemption provided by Rule 12h-1(f) promulgated under the Exchange Act (“**Rule 12h-1(f)**”), except: (1) as permitted by Rule 701(c) promulgated under the Securities Act, (2) to a guardian upon the disability of the Optionholder, or (3) to an executor upon the death of the Optionholder (collectively, the “**Permitted Transferees**”), *provided, however*, the following transfers are permitted: (i) transfers by the Optionholder to the Company, and (ii) transfers in connection with a change of control or other acquisition involving the Company, if following such transaction, the Options no longer remain outstanding and the Company is no longer relying on the exemption provided by Rule 12h-1(f); *provided further*, that any Permitted Transferees may not further transfer the Options; (B) except as otherwise provided in (A) above, the Options and

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shares of Common Stock acquired upon exercise of the Options are restricted as to any pledge, hypothecation, or other transfer, including any short position, any “put equivalent position” as defined by Rule 16a-1(h) promulgated under the Exchange Act, or any “call equivalent position” as defined by Rule 16a-1(b) promulgated under the Exchange Act by the Optionholder prior to exercise of an Option until the Company is no longer relying on the exemption provided by Rule 12h-1(f); and (C) at any time that the Company is relying on the exemption provided by Rule 12h-1(f), the Company shall deliver to Optionholders (whether by physical or electronic delivery or written notice of the availability of the information on an internet site) the information required by Rule 701(e)(3), (4), and (5) promulgated under the Securities Act every six (6) months, including financial statements that are not more than one hundred eighty (180) days old; *provided, however*, that the Company may condition the delivery of such information upon the Optionholder’s agreement to maintain its confidentiality.

9. ADJUSTMENTS UPON CHANGES IN COMMON STOCK; OTHER CORPORATE EVENTS.

(a) Capitalization Adjustments. In the event of a Capitalization Adjustment, the Board shall proportionately and appropriately adjust: (i) the class(es) and maximum number of securities subject to the Plan pursuant to Section 3(a), (ii) the class(es) and maximum number of securities that may be issued pursuant to the exercise of Incentive Stock Options pursuant to Section 3(b), and (iii) the class(es) and number of securities and price per share of stock subject to outstanding Stock Awards. The Board shall make such adjustments, and its determination shall be final, binding and conclusive.

(b) Dissolution or Liquidation. Except as otherwise provided in the Stock Award Agreement, in the event of a dissolution or liquidation of the Company, all outstanding Stock Awards (other than Stock Awards consisting of vested and outstanding shares of Common Stock not subject to the Company’s right of repurchase) shall terminate immediately prior to the completion of such dissolution or liquidation, and the shares of Common Stock subject to the Company’s repurchase rights or subject to a forfeiture condition may be repurchased or reacquired by the Company notwithstanding the fact that the holder of such Stock Award is providing Continuous Service, *provided, however*, that the Board may, in its sole discretion, cause some or all Stock Awards to become fully vested, exercisable and/or no longer subject to repurchase or forfeiture (to the extent such Stock Awards have not previously expired or terminated) before the dissolution or liquidation is completed but contingent on its completion.

(c) Corporate Transaction. The following provisions shall apply to Stock Awards in the event of a Corporate Transaction unless otherwise provided in the instrument evidencing the Stock Award or any other written agreement between the Company or any Affiliate and the holder of the Stock Award or unless otherwise expressly provided by the Board at the time of grant of a Stock Award. Except as otherwise stated in the Stock Award Agreement, in the event of a Corporate Transaction, then, notwithstanding any other provision of the Plan, the Board may take any one or more of the following actions with respect to Stock Awards, contingent upon the closing or completion of the Corporate Transaction:

(i) arrange for the surviving corporation or acquiring corporation (or the surviving or acquiring corporation’s parent company) to assume or continue the Stock Award or to substitute a similar stock award for the Stock Award (including, but not limited to, an award to

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acquire the same consideration paid to the stockholders of the Company pursuant to the Corporate Transaction);

(ii) arrange for the assignment of any reacquisition or repurchase rights held by the Company in respect of Common Stock issued pursuant to the Stock Award to the surviving corporation or acquiring corporation (or the surviving or acquiring corporation's parent company);

(iii) accelerate the vesting of the Stock Award (and, if applicable, the time at which the Stock Award may be exercised) to a date on or prior to the effective time of such Corporate Transaction as the Board shall determine (and contingent upon the effectiveness of the Corporate Transaction);

(iv) arrange for the lapse of any reacquisition or repurchase rights held by the Company with respect to the Stock Award;

(v) cancel or arrange for the cancellation of the Stock Award, to the extent not vested or not exercised prior to the effective time of the Corporate Transaction; and/or

(vi) make a payment, in such form as may be determined by the Board equal to the excess, if any, of (A) the value of the property the holder of the Stock Award would have received upon the exercise of the Stock Award (which may be limited to vested Stock Awards), over (B) any exercise price payable by such holder in connection with such exercise. For purposes of clarity, this payment may be zero if the value of the property is equal to or less than the exercise price. Additionally, the amount and timing of this payment may be reduced or delayed in part or in full as a result of any holdbacks, escrows, earn outs or other contingencies applicable to the proceeds of the Corporate Transaction payable to the Company's stockholders or the Company.

The Board need not take the same action with respect to all Stock Awards (and may take different actions with respect to the portions of the same Stock Award, including with respect to vested and unvested portions of such Awards) or with respect to all Participants.

(d) **Change in Control.** A Stock Award may be subject to additional acceleration of vesting and exercisability upon or after a Change in Control as may be provided in the Stock Award Agreement for such Stock Award or as may be provided in any other written agreement between the Company or any Affiliate and the Participant, but in the absence of such provision, no such acceleration shall occur.

10. TERMINATION OR SUSPENSION OF THE PLAN.

(a) **Plan Term.** The Board may suspend or terminate the Plan at any time. Unless sooner terminated by the Board pursuant to Section 2, the Plan shall automatically terminate on the day before the tenth (10th) anniversary of the earlier of (i) the date the Plan is adopted by the Board, or (ii) the date the Plan is approved by the stockholders of the Company. No Stock Awards may be granted under the Plan while the Plan is suspended or after it is terminated.

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(b) **No Impairment of Rights.** Suspension or termination of the Plan shall not impair rights and obligations under any Stock Award granted while the Plan is in effect except with the written consent of the affected Participant.

11. EFFECTIVE DATE OF PLAN.

This Plan shall become effective on the Effective Date.

12. CHOICE OF LAW.

The law of the State of Delaware shall govern all questions concerning the construction, validity and interpretation of this Plan, without regard to that state's conflict of laws rules.

13. DEFINITIONS. AS USED IN THE PLAN, THE FOLLOWING DEFINITIONS SHALL APPLY TO THE CAPITALIZED TERMS INDICATED BELOW:

(a) **"Affiliate"** means, at the time of determination, any "parent" or "majority-owned subsidiary" of the Company, as such terms are defined in Rule 405 of the Securities Act. The Board shall have the authority to determine the time or times at which "parent" or "majority-owned subsidiary" status is determined within the foregoing definition.

(b) **"Board"** means the Board of Directors of the Company.

(c) **"Capitalization Adjustment"** means any change that is made in, or other events that occur with respect to, the Common Stock subject to the Plan or subject to any Stock Award after the Effective Date without the receipt of consideration by the Company (through merger, consolidation, reorganization, recapitalization, reincorporation, stock dividend, dividend in property other than cash, stock split, liquidating dividend, combination of shares, exchange of shares, change in corporate structure or other transaction not involving the receipt of consideration by the Company). Notwithstanding the foregoing, the conversion of any convertible securities of the Company shall not be treated as a transaction "without the receipt of consideration" by the Company.

(d) **"Cause"** shall have the meaning of the term "Cause" (or any comparable term) contained in any then effective employment agreement or other letter between the Participant and the Company, or if no such agreement or letter exists, or if the term is not defined, shall mean with respect to a Participant, the occurrence of any of the following events: (i) such Participant's commission of any felony or any crime involving fraud, dishonesty or moral turpitude under the laws of the United States or any state thereof; (ii) such Participant's attempted commission of, or participation in, a fraud or act of dishonesty against the Company; (iii) such Participant's intentional, material violation of any contract or agreement between the Participant and the Company or of any statutory duty owed to the Company; (iv) such Participant's unauthorized use or disclosure of the Company's confidential information or trade secrets; or (v) such Participant's gross misconduct. The determination that a termination of the Participant's Continuous Service is either for Cause or without Cause shall be made by the Company in its sole discretion. Any determination by the Company that the Continuous Service of a Participant was terminated by reason of dismissal without Cause for the purposes of

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outstanding Stock Awards held by such Participant shall have no effect upon any determination of the rights or obligations of the Company or such Participant for any other purpose.

(e) “**Change in Control**” means the occurrence, in a single transaction or in a series of related transactions, of any one or more of the following events:

(i) any Exchange Act Person becomes the Owner, directly or indirectly, of securities of the Company representing more than fifty percent (50%) of the combined voting power of the Company’s then outstanding securities other than by virtue of a merger, consolidation or similar transaction. Notwithstanding the foregoing, a Change in Control shall not be deemed to occur (A) on account of the acquisition of securities of the Company by an investor, any affiliate thereof or any other Exchange Act Person that acquires the Company’s securities in a transaction or series of related transactions the primary purpose of which is to obtain financing for the Company through the issuance of equity securities or (B) solely because the level of Ownership held by an Exchange Act Person (the “*Subject Person*”) exceeds the designated percentage threshold of the outstanding voting securities as a result of a repurchase or other acquisition of voting securities by the Company reducing the number of shares outstanding, provided that if a Change in Control would occur (but for the operation of this sentence) as a result of the acquisition of voting securities by the Company, and after such share acquisition, the Subject Person becomes the Owner of any additional voting securities that, assuming the repurchase or other acquisition had not occurred, increases the percentage of the then outstanding voting securities Owned by the Subject Person over the designated percentage threshold, then a Change in Control shall be deemed to occur;

(ii) there is consummated a merger, consolidation or similar transaction involving (directly or indirectly) the Company and, immediately after the consummation of such merger, consolidation or similar transaction, the stockholders of the Company immediately prior thereto do not Own, directly or indirectly, either (A) outstanding voting securities representing more than fifty percent (50%) of the combined outstanding voting power of the surviving Entity in such merger, consolidation or similar transaction or (B) more than fifty percent (50%) of the combined outstanding voting power of the parent of the surviving Entity in such merger, consolidation or similar transaction, in each case in substantially the same proportions as their Ownership of the outstanding voting securities of the Company immediately prior to such transaction;

(iii) the stockholders of the Company approve or the Board approves a plan of complete dissolution or liquidation of the Company, or a complete dissolution or liquidation of the Company shall otherwise occur, except for a liquidation into a parent corporation; or

(iv) there is consummated a sale, lease, exclusive license or other disposition of all or substantially all of the consolidated assets of the Company and its Subsidiaries, other than a sale, lease, license or other disposition of all or substantially all of the consolidated assets of the Company and its Subsidiaries to an Entity, more than fifty percent (50%) of the combined voting power of the voting securities of which are Owned by stockholders of the Company in substantially the same proportions as their Ownership of the outstanding voting securities of the Company immediately prior to such sale, lease, license or other disposition;

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Notwithstanding the foregoing definition or any other provision of this Plan, (A) the term Change in Control shall not include a sale of assets, merger or other transaction effected exclusively for the purpose of changing the domicile of the Company, and (B) the definition of Change in Control (or any analogous term) in an individual written agreement between the Company or any Affiliate and the Participant shall supersede the foregoing definition with respect to Stock Awards subject to such agreement; *provided, however*, that if no definition of Change in Control or any analogous term is set forth in such an individual written agreement, the foregoing definition shall apply.

(f) “**Code**” means the Internal Revenue Code of 1986, as amended.

(g) “**Committee**” means a committee of one (1) or more Directors to whom authority has been delegated by the Board in accordance with Section 2(c).

(h) “**Common Stock**” means the common stock of the Company.

(i) “**Company**” means Verastem, Inc., a Delaware corporation.

(j) “**Consultant**” means any person, including an advisor, who is (i) engaged by the Company or an Affiliate to render consulting or advisory services and is compensated for such services, or (ii) serving as a member of the board of directors of an Affiliate and is compensated for such services. However, service solely as a Director, or payment of a fee for such service, shall not cause a Director to be considered a “Consultant” for purposes of the Plan.

(k) “**Continuous Service**” means that the Participant’s service with the Company or an Affiliate, whether as an Employee, Director or Consultant, is not interrupted or terminated. A change in the capacity in which the Participant renders service to the Company or an Affiliate as an Employee, Director, or Consultant or a change in the Entity for which the Participant renders such service, provided that there is no interruption or termination of the Participant’s service with the Company or an Affiliate, shall not terminate a Participant’s Continuous Service; *provided, however*, if the Entity for which a Participant is rendering service ceases to qualify as an Affiliate, as determined by the Board in its sole discretion, such Participant’s Continuous Service shall be considered to have terminated on the date such Entity ceases to qualify as an Affiliate. For example, a change in status from an employee of the Company to a consultant of an Affiliate or to a Director shall not constitute an interruption of Continuous Service. To the extent permitted by law, the Board or the chief executive officer of the Company, in that party’s sole discretion, may determine whether Continuous Service shall be considered interrupted in the case of any leave of absence approved by that party, including sick leave, military leave or any other personal leave. Notwithstanding the foregoing, a leave of absence shall be treated as Continuous Service for purposes of vesting in a Stock Award only to such extent as may be provided in the Company’s leave of absence policy, in the written terms of any leave of absence agreement or policy applicable to the Participant, or as otherwise required by law.

(l) “**Corporate Transaction**” means the occurrence, in a single transaction or in a series of related transactions, of any one or more of the following events:

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- (i) the consummation of a sale or other disposition of all or substantially all, as determined by the Board in its sole discretion, of the consolidated assets of the Company and its Subsidiaries;
 - (ii) the consummation of a sale or other disposition of at least fifty percent (50%) of the outstanding voting securities of the Company;
 - (iii) the consummation of a merger, consolidation or similar transaction following which the Company is not the surviving corporation;
- or
- (iv) the consummation of a merger, consolidation or similar transaction following which the Company is the surviving corporation but the shares of Common Stock outstanding immediately preceding the merger, consolidation or similar transaction are converted or exchanged by virtue of the merger, consolidation or similar transaction into other property, whether in the form of securities, cash or otherwise.

(m) “**Director**” means a member of the Board.

(n) “**Disability**” means permanent and total disability as defined in Section 22(e)(3) of the Code, and shall be determined by the Board on the basis of such medical evidence as the Board deems warranted under the circumstances.

(o) “**Effective Date**” means the effective date of this Plan, which is the earlier of (i) the date that this Plan is first approved by the Company’s stockholders, or (ii) the date this Plan is adopted by the Board.

(p) “**Employee**” means any person employed by the Company or an Affiliate. However, service solely as a Director, or payment of a fee for such services, shall not cause a Director to be considered an “Employee” for purposes of the Plan.

(q) “**Entity**” means a corporation, partnership, limited liability company or other entity.

(r) “**Exchange Act**” means the Securities Exchange Act of 1934, as amended.

(s) “**Exchange Act Person**” means any natural person, Entity or “group” (within the meaning of Section 13(d) or 14(d) of the Exchange Act), except that “Exchange Act Person” shall not include (i) the Company or any Subsidiary of the Company, (ii) any employee benefit plan of the Company or any Subsidiary of the Company or any trustee or other fiduciary holding securities under an employee benefit plan of the Company or any Subsidiary of the Company, (iii) an underwriter temporarily holding securities pursuant to an offering of such securities, (iv) an Entity Owned, directly or indirectly, by the stockholders of the Company in substantially the same proportions as their Ownership of stock of the Company; or (v) any natural person, Entity or “group” (within the meaning of Section 13(d) or 14(d) of the Exchange Act) that, as of the Effective Date of the Plan as set forth in Section 11, is the Owner, directly or indirectly, of securities of the Company representing more than fifty percent (50%) of the combined voting power of the Company’s then outstanding securities.

(t) “**Fair Market Value**” means, as of any date, the value of the Common Stock determined by the Board in compliance with Section 409A of the Code or, in the case of an Incentive Stock Option, in compliance with Section 422 of the Code.

(u) “**Incentive Stock Option**” means an Option that qualifies as an “incentive stock option” within the meaning of Section 422 of the Code and the regulations promulgated thereunder.

(v) “**Nonstatutory Stock Option**” means an Option that does not qualify as an Incentive Stock Option.

(w) “**Officer**” means any person designated by the Company as an officer.

(x) “**Option**” means an Incentive Stock Option or a Nonstatutory Stock Option to purchase shares of Common Stock granted pursuant to the Plan.

(y) “**Option Agreement**” means a written agreement between the Company and an Optionholder evidencing the terms and conditions of an Option grant. Each Option Agreement shall be subject to the terms and conditions of the Plan.

(z) “**Optionholder**” means a person to whom an Option is granted pursuant to the Plan or, if applicable, such other person who holds an outstanding Option.

(aa) “**Own,**” “**Owned,**” “**Owner,**” “**Ownership**” A person or Entity shall be deemed to “Own,” to have “Owned,” to be the “Owner” of, or to have acquired “Ownership” of securities if such person or Entity, directly or indirectly, through any contract, arrangement, understanding, relationship or otherwise, has or shares voting power, which includes the power to vote or to direct the voting, with respect to such securities.

(bb) “**Participant**” means a person to whom a Stock Award is granted pursuant to the Plan or, if applicable, such other person who holds an outstanding Stock Award.

(cc) “**Plan**” means this Verastem, Inc. 2010 Equity Incentive Plan.

(dd) “**Restricted Stock Award**” means an award of shares of Common Stock which is granted pursuant to the terms and conditions of Section 6(a).

(ee) “**Restricted Stock Award Agreement**” means a written agreement between the Company and a holder of a Restricted Stock Award evidencing the terms and conditions of a Restricted Stock Award. Each Restricted Stock Award Agreement shall be subject to the terms and conditions of the Plan.

(ff) “**Restricted Stock Unit Award**” means a right to receive shares of Common Stock which is granted pursuant to the terms and conditions of Section 6(b).

(gg) “**Restricted Stock Unit Award Agreement**” means a written agreement between the Company and a holder of a Restricted Stock Unit Award evidencing the terms and conditions

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of a Restricted Stock Unit Award grant. Each Restricted Stock Unit Award Agreement shall be subject to the terms and conditions of the Plan.

(hh) “**Securities Act**” means the Securities Act of 1933, as amended.

(ii) “**Stock Appreciation Right**” means a right to receive the appreciation on Common Stock that is granted pursuant to the terms and conditions of Section 6(c).

(jj) “**Stock Appreciation Right Agreement**” means a written agreement between the Company and a holder of a Stock Appreciation Right evidencing the terms and conditions of a Stock Appreciation Right grant. Each Stock Appreciation Right Agreement shall be subject to the terms and conditions of the Plan.

(kk) “**Stock Award**” means any right to receive Common Stock granted under the Plan, including an Incentive Stock Option, a Nonstatutory Stock Option, a Restricted Stock Award, a Restricted Stock Unit Award, or a Stock Appreciation Right.

(ll) “**Stock Award Agreement**” means a written agreement between the Company and a Participant evidencing the terms and conditions of a Stock Award grant. Each Stock Award Agreement shall be subject to the terms and conditions of the Plan.

(mm) “**Subsidiary**” means, with respect to the Company, (i) any corporation of which more than fifty percent (50%) of the outstanding capital stock having ordinary voting power to elect a majority of the board of directors of such corporation (irrespective of whether, at the time, stock of any other class or classes of such corporation shall have or might have voting power by reason of the happening of any contingency) is at the time, directly or indirectly, Owned by the Company, and (ii) any partnership, limited liability company or other entity in which the Company has a direct or indirect interest (whether in the form of voting or participation in profits or capital contribution) of more than fifty percent (50%) .

(nn) “**Ten Percent Stockholder**” means a person who Owns (or is deemed to Own pursuant to Section 424(d) of the Code) stock possessing more than ten percent (10%) of the total combined voting power of all classes of stock of the Company or any Affiliate.

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LEASE AGREEMENT

THIS LEASE AGREEMENT (this “Lease”) is made this 2nd day of May, 2011, between **ARE-MA REGION NO. 38**, LLC, a Delaware limited liability company (“**Landlord**”), and **VERASTEM, INC.**, a Delaware corporation (“**Tenant**”).

BASIC LEASE PROVISIONS

Address:	215 First Street, Cambridge, MA 02142
Premises:	That portion of the Building (as defined below), known as Suite 440, containing approximately 7,484 rentable square feet, as determined by Landlord, as shown on Exhibit A .
Shared Science Facility:	That portion of the Building depicted as the “Shared Science Facility” on Exhibit B attached hereto, subject to adjustment and relocation by Landlord from time to time.
Shared Conference Facility:	That portion of the Building depicted as the “Shared Conference Facility” on Exhibit C attached hereto, subject to adjustment and relocation by Landlord from time to time.
Project:	The real property on which the Building is located, together with all improvements thereon and appurtenances thereto as described on Exhibit D .
Building:	That building located on the Project and commonly known and numbered as 215 First Street, Cambridge, Massachusetts.
Base Rent:	\$46.00 per rentable square foot of the Premises per year, subject to adjustments as set forth in <u>Section 3</u> below.
Rent Adjustment Amount:	\$1.25 per rentable square foot of the Premises per year
Rentable Area of Premises:	Approximately 7,484 rentable square feet.
Rentable Area of Project:	Approximately 366,719 rentable square feet.
Tenants Share:	2.04%.
Tenant’s Percentage Share (Science Facility):	8.80%
Security Deposit:	\$86,066.00
Target Commencement Date:	May 15, 2011
Term:	Beginning on the Commencement Date and ending 41 months from the first day of the first full month commencing on or after the Commencement Date.
Permitted Use:	Research and development laboratory, related office and other related uses consistent with the character of the Project and otherwise in compliance with the provisions of <u>Section 6</u> hereof.

Address for Rent Payment:
P.O. Box 975383
Dallas, TX 75397-5383

Landlord’s Notice Address:
385 East Colorado Boulevard,
Suite 299
Pasadena, CA 91101
Attention: Corporate Secretary
Facsimile: 626-578-0770

Tenant’s Notice Address:
215 First Street, Suite 340
Cambridge, MA 02142
Attention: Lease Administrator



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1. **Lease of Premises; Right to Use Common Areas; License to Shared Areas.**

(a) **Lease of Premises; Common Areas.** Upon and subject to all of the terms and conditions hereof, Landlord hereby leases the Premises to Tenant and Tenant hereby leases the Premises from Landlord. The portions of the Project that are for the non-exclusive use of tenants of the Project (including but not limited to the restrooms, elevators, stairways, lobbies, corridors, walkways and Building entrances) are collectively referred to herein as the “**Common Areas**.” Tenant shall have the non-exclusive right to use the Common Areas of the Project, excluding the Shared Science Facility and Shared Conference Facility to which Tenant’s rights are as set forth in Section 1(b) below. Landlord reserves the right to modify, reconfigure and relocate the Common Areas, provided that such modifications, reconfigurations or relocations do not materially adversely affect Tenant’s use of the Premises for the Permitted Use. Notwithstanding the foregoing, no interruption in Building Systems, services or Utilities, from any cause whatsoever, in connection with any

work to effect any such modification, reconfiguration or relocation shall result in eviction or constructive eviction of Tenant, termination of this Lease or the abatement of Rent. Landlord reserves the right to change the form of ownership of the Project or any part thereof.

(b) **Shared Science Facility; Shared Conference Facility.** Concurrently with the execution and delivery of this Lease by Tenant, Tenant shall execute and deliver to Landlord a license agreement in the form attached as **Exhibit E** attached hereto (the “**License Agreement**”). Tenant shall have the non-exclusive right to use the Shared Science Facility and Shared Conference Facility pursuant to the terms and conditions of the License Agreement. Tenant shall have no right to use or access the Shared Science Facility or Shared Conference Facility, except as provided in the License Agreement.

2. **Delivery; Acceptance of Premises; Commencement Date.** Landlord shall deliver the Premises (“**Delivery**” or “**Deliver**”) to Tenant 1 business day after the mutual execution and delivery of this Lease by the parties.

The “**Commencement Date**” shall be the date Landlord Delivers the Premises to Tenant. The “**Rent Commencement Date**” shall be the date that is 5 months after the Commencement Date. Upon request of Landlord, Tenant shall execute and deliver a written acknowledgment of the Commencement Date, the Rent Commencement Date and the expiration date of the Term when such are established in the form of the “**Acknowledgement of Commencement Date**” attached to this Lease as **Exhibit G**; provided, however, Tenant’s failure to execute and deliver such acknowledgment shall not affect Landlord’s rights hereunder. The “**Term**” of this Lease shall be as defined above in the Basic Lease Provision and the Extension Term which Tenant may elect pursuant to Section 35 hereof.

Except as set forth in this Lease all applicable Legal Requirements (as defined in Section 7 hereof); (ii) Landlord shall have no obligation for any defects in the Premises; and (iii) Tenant’s taking possession of the Premises shall be conclusive evidence that Tenant accepts the Premises and that the Premises were in good condition at the time possession was taken. Any occupancy of the Premises by Tenant before the Commencement Date shall be subject to all of the terms and conditions of this Lease, excluding the obligation to pay Base Rent and Operating Expenses.

Tenant agrees and acknowledges that neither Landlord nor any agent of Landlord has made any representation or warranty with respect to the condition of all or any portion of the Premises or the Project, and/or the suitability of the Premises or the Project for the conduct of Tenant’s business, and Tenant waives any implied warranty that the Premises or the Project are suitable for the Permitted Use. This Lease constitutes the complete agreement of Landlord and Tenant with respect to the subject matter hereof and supersedes any and all prior representations, inducements, promises, agreements, understandings and negotiations which are not contained herein.

3. **Base Rent.**

(a) Base Rent for the month in which the Rent Commencement Date occurs and the Security Deposit shall be due and payable on delivery of an executed copy of this Lease to Landlord.

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Commencing on the Rent Commencement Date, Tenant shall pay to Landlord in advance, monthly installments of Base Rent on or before the first day of each calendar month during the Term hereof, in lawful money of the United States of America, at the office or address of Landlord for payment of Rent set forth above. Payments of Base Rent for any fractional calendar month shall be prorated. Except as expressly provided in Section 15 below, Tenant shall have no right at any time to abate, reduce, or set-off any Rent due hereunder. If the Rent Commencement Date is other than the first day of a calendar month, the difference between the first full calendar month’s Base Rent paid pursuant to the first sentence of this Section 3(a), and the prorated Base Rent for the fractional month in which the Rent Commencement Date occurs shall be applied by Landlord to the first full calendar month after the Rent Commencement Date. Base Rent shall be increased on each anniversary of the Commencement Date (each an “**Adjustment Date**”) by adding the Rent Adjustment Amount to the Base Rent payable per rentable square foot of the Premises per year immediately before such Adjustment Date. Base Rent, as so adjusted, shall thereafter be due as otherwise provided herein. Base Rent adjustments for any fractional calendar month shall be prorated.

(b) In addition to Base Rent, Tenant agrees to pay to Landlord as additional rent (“**Additional Rent**”): (i) Tenant’s Share of Project Operating Expenses and Tenant’s Percentage Share (Science Facility) of Science Facility Operating Expenses (each as defined in Section 4), and (ii) any and all other amounts Tenant assumes or agrees to pay under the provisions of this Lease, including, without limitation, any and all other sums that may become due by reason of any default of Tenant or failure to comply with the agreements, terms, covenants and conditions of this Lease to be performed by Tenant, after any applicable notice and cure period. Tenant’s obligation to pay Base Rent and Additional Rent hereunder are collectively referred to herein as “**Rent**”.

4. **Operating Expense Payments.** Landlord shall deliver to Tenant a written estimate of Project Operating Expenses and Science Facility Operating Expenses for each calendar year during the Term (together, the “**Annual Estimate**”), which may be revised by Landlord from time to time during such calendar year. Commencing on the Commencement Date and continuing thereafter on the first day of each month during the Term, Tenant shall pay Landlord an amount equal to 1/12th of Tenant’s Share of Project Operating Expenses and 1/12th of Tenant’s Percentage Share (Science Facility) of Science Facility Operating Expenses, each as shown on the Annual Estimate. Payments for any fractional calendar month shall be prorated. As used herein the term “**Operating Expenses**” shall mean collectively the Project Operating Expenses and the Science Facility Operating Expenses (as such terms are hereinafter defined); and the term “**Tenant’s Share of Operating Expenses**” shall mean collectively Tenant’s Share of Project Operating Expenses and Tenant’s Percentage Share (Science Facility) of Science Facility Operating Expenses.

The term “**Project Operating Expenses**” means all costs and expenses of any kind or description whatsoever incurred or accrued each calendar year by Landlord with respect to the Project (including, without duplication, Taxes (as defined below in this Section 4), transportation services (including costs associated with Landlord’s participation in the EZ-Ride shuttle or a successor shuttle service), reasonable reserves consistent with good business practice for future repairs and replacements, capital repairs and replacements, and those capital improvements the purpose of which is to reduce Project Operating Expenses and/or to comply with Legal Requirements first made effective after the date of this Lease, which capital repairs, replacements and capital improvements are in each case amortized over the lesser of 7 years and the useful life of such capital items, and the costs of Landlord’s third party property manager or, if there is no third party property manager, administration rent in the amount of 4.0% of Base Rent (including Base Rent that would have been payable for the period commencing in the Commencement Date through the Rent Commencement Date)) excluding only:

(a) the original construction costs of the Project and renovation prior to the date of the Lease and costs of correcting defects in such original construction or renovation;

(b) capital expenditures for expansion of the Project or capital improvements that are not for the purpose of reducing Project Operating Expenses and/or complying with Legal Requirements first made effective after the date of this Lease;

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(c) interest, principal payments of Mortgage (as defined in Section 23) debts of Landlord, financing costs and amortization of funds borrowed by Landlord, whether secured or unsecured and all payments of base rent (but not taxes or operating expenses) under any ground lease or other underlying lease of all or any portion of the Project;

(d) depreciation of the Project (except for those capital improvements, the cost of which are includable in Project Operating Expenses as provided above in this Section 4);

(e) advertising, legal and space planning expenses and leasing commissions and other costs and expenses incurred in procuring and leasing space to tenants for the Project, including any leasing office maintained in the Project, free rent and construction allowances for tenants;

(f) legal and other expenses incurred in the negotiation or enforcement of leases;

(g) completing, fixturing, improving, renovating, painting, redecorating or other work, which Landlord pays for or performs for other tenants within their premises, and costs of correcting defects in such work;

(h) costs of utilities outside normal business hours sold to tenants of the Project;

(i) costs to be reimbursed by other tenants of the Project or Taxes to be paid directly by Tenant or other tenants of the Project, whether or not actually paid;

(j) salaries, wages, benefits and other compensation paid to officers and employees of Landlord who are not assigned in whole or in part to the operation, management, maintenance or repair of the Project;

(k) general organizational, administrative and overhead costs relating to maintaining Landlord's existence, either as a corporation, partnership, or other entity, including general corporate, legal and accounting expenses;

(l) costs (including attorneys' fees and costs of settlement, judgments and payments in lieu thereof) incurred in connection with disputes with tenants, other occupants, or prospective tenants, and costs and expenses, including legal fees, incurred in connection with negotiations or disputes with employees, consultants, management agents, leasing agents, purchasers or mortgagees of the Building;

(m) costs incurred by Landlord due to the violation by Landlord, its employees, agents or contractors or any tenant of the terms and conditions of any lease of space in the Project or any Legal Requirement (as defined in Section 6);

(n) penalties, fines or interest incurred as a result of Landlord's inability or failure to make payment of Taxes and/or to file any tax or informational returns when due, or from Landlord's failure to make any payment of Taxes required to be made by Landlord hereunder before delinquency;

(o) overhead and profit increment paid to Landlord or to subsidiaries or affiliates of Landlord for goods and/or services in or to the Project to the extent the same exceeds the costs of such goods and/or services rendered by unaffiliated third parties on a competitive basis;

(p) costs of Landlord's charitable or political contributions, or of fine art maintained at the Project;

(q) costs in connection with services (including electricity), items or other benefits of a type which are not standard for the Project and which are not available to Tenant without specific charges therefor, but which are provided to another tenant or occupant of the Project, whether or not such other tenant or occupant is specifically charged therefor by landlord;

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(r) costs incurred in the sale or refinancing of the Project;

(s) net income taxes of Landlord or the owner of any interest in the Project, franchise, capital stock, gift, estate or inheritance taxes or any federal, state or local documentary taxes imposed against the Project or any portion thereof or interest therein;

(t) any expenses otherwise includable within Project Operating Expenses to the extent actually reimbursed by persons other than tenants of the Project under leases for space in the Project; and

(u) costs incurred in connection with the clean-up, response action or remediation of Hazardous Materials on the Project or in the Premises that Tenant demonstrates to Landlord's reasonable satisfaction were present on the Project or in the Premises prior to the date of this Lease, except to the extent Tenant and/or any of the Tenant Parties have exacerbated or contributed to such contamination.

Within 90 days after the end of each calendar year (or such longer period as may be reasonably required), Landlord shall furnish to Tenant a statement (an "**Annual Statement**") showing in reasonable detail: (a) the actual totals of Project Operating Expenses, Science Facility Operating Expenses, Tenant's Share of Project Operating Expenses and Tenant's Percentage Share (Science Facility) of Science Facility Operating Expenses, in each case for the previous calendar year, and (b) the total of Tenant's payments in respect of Project Operating Expenses and Science Facility Operating Expenses for such year. If Tenant's Share of actual Project Operating Expenses for such year exceeds Tenant's payments of Project Operating Expenses for such year, or if Tenant's Percentage Share (Science Facility) of actual Science Facility Operating Expenses for such year exceeds Tenant's payments of Science Facility Operating Expenses for such year, the excess shall be due and payable by Tenant as Rent within 30 days after delivery of such Annual Statement to Tenant. If Tenant's payments of Project Operating Expenses for such year exceed Tenant's Share of actual Project Operating Expenses for such year, or if Tenant's

payments of Science Facility Operating Expenses for such year exceed Tenant's Percentage Share (Science Facility) of actual Science Facility Operating Expenses for such year, Landlord shall pay the excess to Tenant within 30 days after delivery of such Annual Statement, except that after the expiration, or earlier termination of the Term or if Tenant is delinquent in its obligation to pay Rent, Landlord shall pay the excess to Tenant after deducting all other amounts due Landlord.

The Annual Statement shall be final and binding upon Tenant unless Tenant, within 60 days after Tenant's receipt thereof, shall contest any item therein by giving written notice to Landlord, specifying each item contested and the reason therefor. If, during such 60 day period, Tenant reasonably and in good faith questions or contests the accuracy of Landlord's statement of Tenant's Share of Project Operating Expenses or Tenant's Percentage Share (Science Facility) of Science Facility Operating Expenses, Landlord will provide Tenant with access to Landlord's books and records relating to the operation of the Project and such information as Landlord reasonably determines to be responsive to Tenant's questions (the "**Expense Information**"). If after Tenant's review of such Expense Information, Landlord and Tenant cannot agree upon the amount of Tenant's Share of Project Operating Expenses or Tenant's Percentage Share (Science Facility) of Science Facility Operating Expenses, then Tenant shall have the right to have an independent public accounting firm selected by Tenant, working pursuant to a fee arrangement other than a contingent fee (at Tenant's sole cost and expense) and approved by Landlord (which approval shall not be unreasonably withheld or delayed), audit and/or review the Expense Information for the year in question (the "**Independent Review**"). The results of any such Independent Review shall be binding on Landlord and Tenant. If the Independent Review shows that the payments actually made by Tenant with respect to Project Operating Expenses for the calendar year in question exceeded Tenant's Share of Project Operating Expenses for such calendar year, or that the payments actually made by Tenant with respect to Science Facility Operating Expenses for the calendar year in question exceeded Tenant's Percentage Share (Science Facility) of Science Facility Operating Expenses, Landlord shall at Landlord's option either (i) credit the excess amount to the next succeeding installments of estimated Operating Expenses or (ii) pay the excess to Tenant within 30 days after delivery of such statement, except that after the expiration or earlier termination of this Lease or if Tenant is delinquent in its obligation to pay Rent, Landlord shall pay the excess to Tenant after deducting all

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other amounts due Landlord. If the Independent Review shows that Tenant's payments with respect to Project Operating Expenses for such calendar year were less than Tenant's Share of Project Operating Expenses for the calendar year, or that Tenant's payments with respect to Science Facility Operating Expenses for such calendar year were less than Tenant's Percentage Share (Science Facility) of Science Facility Operating Expenses, Tenant shall pay the deficiency to Landlord within 30 days after delivery of such statement. If the Independent Review shows that Tenant has overpaid with respect to Project Operating Expenses and Science Facility Operating Expenses by more than 5% then Landlord shall reimburse Tenant for all costs incurred by Tenant for the Independent Review.

Operating Expenses for the calendar years in which Tenant's obligation to share therein begins and ends shall include Operating Expenses for whole calendar months in such calendar years and any partial calendar months shall be prorated. Notwithstanding anything set forth herein to the contrary, if the Project is not at least 95% occupied on average during any year of the Term, for such year those expenses included in Tenant's Share of Project Operating Expenses that vary with the level of occupancy of the Building shall be computed as though the Project had been 95% occupied on average during such year.

"**Tenant's Share**" shall be the percentage set forth in the Basic Lease Provisions as Tenant's Share as reasonably adjusted by Landlord for changes in the physical size of the Premises or the Project occurring thereafter. Landlord may equitably increase Tenant's Share for any item of expense or cost reimbursable by Tenant that relates to a repair, replacement, or service that benefits only the Premises or only a portion of the Project that includes the Premises or that varies with occupancy or use. "**Tenant's Percentage Share (Science Facility)**" means the percentage set forth in the Basic Lease Provisions, which Tenant's Percentage Share (Science Facility) shall be subject to further adjustment for changes in the physical size of the Shared Science Facility or the Premises occurring after the date of this Lease, and may be equitably increased for any item of expense or cost reimbursable that is specific to Tenant or that varies with occupancy or use or to address variations in occupancy or use of the Shared Science Facility among Tenant and other tenants. In the event that Tenant's Share is adjusted based on a remeasurement of the Premises as set forth above, Tenant's Percentage Share (Science Facility) shall be subject to a corresponding adjustment. "**Science Facility Operating Expenses**" means Landlord's determination of all costs and expenses of any kind or description whatsoever incurred or accrued each calendar year by Landlord with respect to the Shared Science Facility at the Project (including, without duplication, water, sewer, electricity, gas and any other utilities serving such facilities, maintenance and repairs (including without limitation maintenance contracts) for such facilities and equipment therein, reasonable reserves consistent with good business practice for future repairs and replacements, capital repairs and replacements, and those capital improvements the purpose of which is to reduce Science Facility Operating Expenses and/or to comply with Legal Requirements first made effective after the date of this Lease, which capital repairs, replacements and capital improvements are in each case amortized over the lesser of 7 years and the useful life of such capital items, the contractor fees and expenses and/or salaries, wages, benefits and other compensation paid to any personnel as may be assigned in whole or in part to such facilities, and any Taxes assessed by a Governmental Authority (as defined below) with a valuation allocated to the Shared Science Facility in the Project, but excluding the same kinds of exclusions enumerating in clauses (a) through (u) above with respect to Project Operating Expenses. For purposes of clarification, the parties agree that those specific expense items actually included in Science Facility Operating Expenses in a year shall not also be included as Project Operating Expenses in the same year.

Landlord shall pay, as part of Operating Expenses, all taxes, levies, fees, assessments and governmental charges of any kind, existing as of the Commencement Date or thereafter enacted (collectively referred to as "**Taxes**"), imposed by any federal, state, regional, municipal, local or other governmental authority or agency, including, without limitation, quasi-public agencies (collectively, "**Governmental Authority**") during the Term, including, without limitation, all Taxes: (i) imposed on or measured by or based, in whole or in part, on rent payable to (or gross receipts received by) Landlord under this Lease and/or from the rental by Landlord of the Project or any portion thereof, or (ii) based on the square footage, assessed value or other measure or evaluation of any kind of the Premises, the Shared Science Facility, or the Project, or (iii) assessed or imposed by or on the operation or maintenance of any portion of the Premises, the Shared Science Facility, or the Project, including

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parking, or (iv) assessed or imposed by, or at the direction of, or resulting from Legal Requirements, or interpretations thereof, promulgated by, any Governmental Authority, or (v) imposed as a license or other fee, charge, tax or assessment on Landlord's business or occupation of leasing space in the Project. Landlord may contest by appropriate legal proceedings the amount, validity, or application of any Taxes or liens securing Taxes. Taxes shall not include any net income taxes imposed on Landlord except to the extent such net income taxes are in substitution for any Taxes payable hereunder, nor franchise, conveyance or excise taxes. Project Operating Expenses hereunder shall also include the cost of tax monitoring services provided to Landlord with respect to the Project. Tenant shall pay, prior to delinquency, any and all Taxes levied or assessed against any personal property or trade fixtures placed by

Tenant in the Premises, whether levied or assessed against Landlord or Tenant. If any Taxes on Tenant's personal property or trade fixtures are levied against Landlord or Landlord's property, or if the assessed valuation of the Project is increased by a value attributable to improvements in or alterations to the Premises, whether owned by Landlord or Tenant and whether or not affixed to the real property so as to become a part thereof, higher than the base valuation on which Landlord from time-to-time allocates Taxes to all tenants in the Project, Landlord shall have the right, but not the obligation, to pay such Taxes. Landlord's determination of any excess assessed valuation shall be binding and conclusive, absent manifest error. The amount of any such payment by Landlord shall constitute Additional Rent due from Tenant to Landlord immediately upon demand. If Landlord shall receive any abatement or refund of Taxes that does not derive from any vacancy in the Building or rent losses and such abatement or refund is for a time period for which Tenant has made payments during the Term, then out of any balance remaining after deducting Landlord's expenses incurred in obtaining such refund or abatement, Landlord shall, at Landlord's option, either (i) credit the excess amount determined by Landlord to be attributable to the Premises to the next succeeding installments of estimated Taxes or (ii) pay the excess amount determined by Landlord to be attributable to the Premises to Tenant within 30 days after delivery of the Annual Statement, except that after the expiration or earlier termination of this Lease or if Tenant is delinquent in its obligation to pay Rent, Landlord shall pay such excess amount determined by Landlord to be attributable to the Premises to Tenant after deducting all other amounts due Landlord. Nothing contained in this Lease shall obligate Landlord to seek a refund or abatement of Taxes.

5. **Security Deposit.** Tenant shall deposit with Landlord, upon delivery of an executed copy of this Lease to Landlord, a security deposit (the "**Security Deposit**") for the performance of all of Tenant's obligations hereunder in the amount set forth in the Basic Lease Provisions, which Security Deposit shall be in the form of an unconditional and irrevocable letter of credit (the "**Letter of Credit**"): (i) in form and substance reasonably satisfactory to Landlord, (ii) naming Landlord as beneficiary, (iii) expressly allowing Landlord to draw upon it at any time from time to time by delivering to the issuer notice that Landlord is entitled to draw thereunder, (iv) issued by an FDIC-insured financial institution satisfactory to Landlord, and (v) redeemable by presentation of a sight draft (which may be presented by delivery by overnight courier) at the financial institution's offices in the United States. With respect to any Letter of Credit given as a Security Deposit or Additional Security Deposit (as defined below) hereunder, if Tenant does not provide Landlord with a substitute Letter of Credit complying with all of the requirements hereof at least 10 days before the stated expiration date of any then current Letter of Credit, Landlord shall have the right to draw the full amount of the current Letter of Credit and hold the funds drawn in cash without obligation for interest thereon as the Security Deposit and, if applicable, the Additional Security Deposit. The Security Deposit and Additional Security Deposit, if any, shall be held by Landlord as security for the performance of Tenant's obligations under this Lease. The Security Deposit and, if any, Additional Security Deposit do not constitute an advance rental deposit or a measure of Landlord's damages in case of Tenant's default. Upon each occurrence of a Default (as defined in Section 16), Landlord may use all or any part of the Security Deposit and, if any, the Additional Security Deposit to pay delinquent payments due under this Lease, and the cost of any damage, injury, expense or liability caused by such Default, without prejudice to any other remedy provided herein or provided by law. Tenant hereby waives the provisions of any 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 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. Upon any such use of all or any portion of the Security Deposit and/or Additional Security Deposit, Tenant shall, within 5 days after demand from Landlord, restore the

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Security Deposit to its original amount. If Tenant shall fully perform every provision of this Lease to be performed by Tenant, the Security Deposit, or any balance thereof (i.e., after deducting therefrom all amounts to which Landlord is entitled under the provisions of this Lease), shall be returned to Tenant (or, at Landlord's option, to the last assignee of Tenant's interest hereunder) within 90 days after the expiration or earlier termination of this Lease.

6. **Use.** The Premises shall be used solely for the Permitted Use set forth in the Basic Lease Provisions, in compliance with all laws, orders, judgments, ordinances, regulations, codes, directives, permits, licenses, covenants and restrictions now or hereafter applicable to the Premises, and the use and occupancy thereof (collectively, "**Legal Requirements**"). Tenant will use the Premises in a careful, safe and proper manner and will not commit waste, overload the floor or structure of the Premises, subject the Premises to use that would damage the Premises or obstruct or interfere with the rights of Landlord or other tenants or occupants of the Project, including conducting or giving notice of any auction, liquidation, or going out of business sale on the Premises, or using or allowing the Premises to be used for any unlawful purpose.

7. **Holding Over.** If Tenant remains in possession of the Premises after the expiration or earlier termination of the Term without the express written consent of Landlord, (A) Tenant shall become a tenant at sufferance upon the terms of this Lease except that the monthly rental shall be equal to 150% of the Rent in effect during the last 30 days of the Term, and (B) Tenant shall be responsible for all damages suffered by Landlord resulting from or occasioned by Tenant's holding over, including, if Tenant holds over in excess of 30 days, consequential damages suffered by Landlord. Acceptance by Landlord of Rent after the expiration of the Term or earlier termination of this Lease shall not result in a renewal or reinstatement of this Lease.

8. **Parking.** Subject to all matters of record, Force Majeure, a casualty or Taking (as defined in Section 15 below) and the exercise by Landlord of its rights hereunder, Landlord shall make available to Tenant at then-current market rates from time to time a license for 8 parking spaces in the surface parking lots at the Project or at the "Brown Lot" at 100 Binney Street, Cambridge, Massachusetts, all of such parking spaces to be on a non-reserved basis. As of the Commencement Date, the market parking rate for the parking spaces in such surface lots is \$220 per parking space per month. Tenant shall have the right but not the obligation to license such 8 parking spaces. Tenant shall notify Landlord prior to the Commencement Date as to how many of the 8 parking spaces that Tenant will license hereunder and Tenant shall give Landlord 30 days' notice if it wishes to license additional spaces, up to 8 spaces in the aggregate hereunder. Landlord shall not be responsible for enforcing Tenant's parking rights against any third parties, including without limitation other tenants of the Project. Landlord shall have the right, exercisable by notice to Tenant given at any time during the Term, to relocate all or a portion of the parking spaces made available to Tenant hereunder to another location within a 10-minute walk of the Building.

9. **Utilities, Services.**

(a) Landlord shall provide, subject to the terms of this Section 9, water, electricity, heat, air conditioning, light, power, passenger elevator service, telephone (to the central demarcation room only), sewer, and other utilities (including gas and fire sprinklers to the extent the Project is plumbed for such services), and, for the office portion of the Premises only, refuse and trash collection and janitorial services (collectively, "**Utilities**"). Landlord shall pay, as Operating Expenses or subject to Tenant's reimbursement obligation, for all Utilities used on the Premises, all maintenance charges for Utilities, and any storm sewer charges or other similar charges for Utilities imposed by any Governmental Authority or Utility provider, and any taxes, penalties, surcharges or similar charges thereon. Electricity serving the Premises will be separately submetered. The installation of such submeter for electricity shall be paid for by Landlord. Landlord may cause, at Landlord's expense, any other Utilities to be separately metered or charged directly to Tenant by the provider. Tenant shall pay directly to the Utility provider, prior to delinquency, any separately metered Utilities and services which may be furnished to Tenant or the Premises during the Term. Tenant shall pay, as part of Operating Expenses, its share of all charges for jointly metered Utilities based upon

consumption, as reasonably determined by Landlord. No interruption or failure of Utilities, from any cause whatsoever, shall result in eviction or constructive eviction of Tenant,

termination of this Lease or the abatement of Rent. Tenant agrees to limit use of water and sewer with respect to Common Areas to normal restroom use.

(b) Tenant shall provide janitorial services and trash collection for the laboratory portion of the Premises, and Landlord shall provide as an Operating Expense janitorial services to the office portion of the Premises and a dumpster and/or compactor at the loading dock for use by Tenant in common with others entitled thereto for the disposal of non-hazardous and non-controlled substances and material.

(c) Tenant may use the freight elevator and loading dock in common with others entitled thereto at no additional charge. The regular hours of operation of the freight elevator and loading dock are 24 hours per day, 7 days per week, subject to downtime for maintenance and repairs.

(d) Landlord's sole obligation for providing standby generators or any other standby power equipment, systems, furnishings or personal property, whether or not affixed to the Building (collectively, the "**Equipment**") shall be (i) to provide such Equipment as is determined by Landlord in its sole and absolute discretion, and (ii) to contract with a third party (determined by Landlord to be qualified) to maintain the Equipment that is deemed by Landlord (in its reasonable professional discretion) to need periodic maintenance per the manufacturer's standard maintenance guidelines. Landlord shall have no obligation to provide Tenant with operational Equipment, back-up Equipment or back-up utilities or to supervise, oversee or confirm that the third party maintaining the Equipment is maintaining the Equipment as per the manufacturer's standard guidelines or otherwise. During any period of replacement, repair or maintenance of the Equipment when such Equipment is not operational, including any delays thereto due to the inability to obtain parts or replacements, Landlord shall have no obligation to provide Tenant with alternative or back-up Equipment or alternative sources of utilities. Tenant expressly acknowledges and agrees that Landlord does not guaranty that the Equipment will be operational at all times, will function or perform adequately, or that emergency power will be available to the Premises when needed, and Landlord shall not be liable for any damages resulting from the failure of such Equipment. Tenant hereby releases Landlord from and against any and all claims arising directly or indirectly out of or relating to the Equipment, or the existence, use of failure thereof, unless caused solely by the willful misconduct or gross negligence of Landlord. The terms of this Section 9(d) shall survive the expiration or earlier termination of this Lease.

10. **Alterations; Tenant's Property.** Any alterations, additions, or improvements made to the Premises by or on behalf of Tenant, including additional locks or bolts of any kind or nature upon any doors or windows in the Premises, but excluding installation, removal or realignment of furniture systems (other than removal of furniture systems owned or paid for by Landlord) not involving any modifications to the structure or connections (other than by ordinary plugs or jacks) to Building Systems (as defined in Section 11(a) below) ("**Alterations**") shall be subject to Landlord's prior written consent, which may be given or withheld in Landlord's sole discretion if any such Alteration affects the structure or Building Systems, but which shall otherwise not be unreasonably withheld or delayed. If Landlord approves any Alterations, Landlord may impose such conditions on Tenant in connection with the commencement, performance and completion of such Alterations as Landlord may deem appropriate in Landlord's reasonable discretion. Tenant agrees to take such steps as may be required, or as otherwise directed by Landlord, with respect to contractors and subcontractors performing any Alterations to ensure that no labor disruption, strikes, pickets, protests or other similar labor actions occur on or about the Premises in connection with the performance of work on any Alterations. Any request for approval of Alterations shall be in writing, delivered not less than 15 business days in advance of any proposed construction, and accompanied by plans, specifications, bid proposals, work contracts and such other information concerning the nature and cost of the Alterations as may be reasonably requested by Landlord, including the identities and mailing addresses of all persons performing work or supplying materials. Landlord's right to review plans and specifications and to monitor construction shall be solely for its own benefit, and Landlord shall have no duty to ensure that such plans and specifications or construction comply with applicable Legal Requirements. Tenant shall cause, at its sole cost and expense, all Alterations to comply with insurance requirements and with Legal Requirements and shall implement at its sole cost and expense any alteration or modification required by Legal Requirements as a result of any Alterations. Tenant shall pay to Landlord, as Additional Rent, within 20 days after demand Landlord's out-of-pocket expenses for plan review, coordination, scheduling and supervision in connection with any Alterations.

Before Tenant begins any Alteration, Landlord may post on and about the Premises notices of non-responsibility pursuant to applicable law. Tenant shall reimburse Landlord for, and indemnify and hold Landlord harmless from, any expense incurred by Landlord by reason of faulty work done by Tenant or its contractors, delays caused by such work, or inadequate cleanup.

Tenant shall furnish security or make other arrangements satisfactory to Landlord to assure payment for the completion of all Alterations work free and clear of liens, and shall provide (and cause each contractor or subcontractor to provide) certificates of insurance for workers' compensation and other coverage in amounts and from an insurance company satisfactory to Landlord protecting Landlord against liability for personal injury or property damage during construction. Upon completion of any Alterations, Tenant shall deliver to Landlord: (i) sworn statements setting forth the names of all contractors and subcontractors who did the work and final lien waivers from all such contractors and subcontractors; and (ii) "as built" plans for any such Alteration.

Other than (i) the items, if any, listed on **Exhibit H** attached hereto, (ii) any items agreed by Landlord in writing to be included on **Exhibit H** in the future, and (iii) any trade fixtures, machinery, equipment and other personal property not installed by Landlord or its contractor which may be removed without material damage to the Premises, which damage shall be repaired (including capping or terminating utility hook-ups behind walls) by Tenant during the Term (collectively, "**Tenant's Property**"), all property of any kind paid installed by Landlord or its contractor as part of the Tenant Improvements, Alterations, real property fixtures, built-in machinery and equipment, built-in casework and cabinets and other similar additions and improvements built into the Premises so as to become an integral part of the Premises, such as fume hoods which penetrate the roof or plenum area, built-in cold rooms, built-in warm rooms, walk-in cold rooms, walk-in warm rooms, deionized water systems, glass washing equipment, autoclaves, chillers, built-in plumbing, electrical and mechanical equipment and systems, and any power generator and transfer switch (collectively, "**Installations**") shall be and shall remain the property of Landlord during the Term and following the expiration or earlier termination of the Term, shall not be removed by Tenant at any time during the Term and shall remain upon and be surrendered with the Premises as a part thereof in accordance with Section 24 following the expiration or earlier termination of this Lease; provided, however, that Landlord shall, at the time its approval of such Installation is requested notify Tenant if it has elected to cause Tenant to remove such Installation upon the expiration or earlier termination of this Lease. If Landlord so elects, Tenant shall remove such Installation upon the expiration or earlier termination of this Lease and restore any damage caused by or occasioned as a result of such removal, including, when removing any of Tenant's Property which was plumbed, wired or otherwise connected to any of the Building's plumbing, electrical or other Building Systems, capping off all

such connections behind the walls of the Premises and repairing any holes. During any such restoration period, Tenant shall pay Rent to Landlord as provided herein as if said space were otherwise occupied by Tenant.

11. **Repairs.**

(a) **Landlord's Repairs.** Landlord, as an Operating Expense, shall maintain all of the structural, exterior, parking and other Common Areas of the Project, including HVAC, plumbing, fire sprinklers, elevators and all other building systems serving the Premises and other portions of the Project ("**Building Systems**"), in good repair, reasonable wear and tear and uninsured losses and damages caused by Tenant, or by any of Tenant's agents, servants, employees, invitees and contractors (individually, a "**Tenant Party**" and collectively, "**Tenant Parties**") excluded. Landlord shall repair losses and damages caused by Tenant or any Tenant Party at Tenant's sole cost and expense. Such maintenance and repairs by Landlord under this Section shall include Landlord's making such replacements as Landlord may deem necessary in its sole discretion. Landlord reserves the right to stop building system services when necessary. Landlord shall have no responsibility or liability for failure to supply building system services during any such period of interruption; provided, however, that Landlord shall give Tenant 24 hours advance notice of any planned stoppage of building system services for routine maintenance, repairs, alterations or improvements. Landlord shall not be liable for any failure to make any repairs or to perform any maintenance unless such failure shall persist for an unreasonable time after Tenant's written notice of the need for such repairs or maintenance. Tenant waives its rights under any state or local law to terminate this Lease or to make such repairs at Landlord's expense and

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agrees that the parties' respective rights with respect to such matters shall be solely as set forth herein. Repairs required as the result of fire, earthquake, flood, vandalism, war, or similar cause of damage or destruction shall be controlled by Section 15.

(b) **Tenant's Repairs.** Subject to Section 11(a) and Section 15 hereof, Tenant, at its expense, shall repair, replace and maintain in the same condition as received on the Commencement Date or as thereafter improved in accordance with this Lease, reasonable wear and tear and damage covered by Section 15 excepted, all portions of the Premises, including, without limitation, entries, doors, ceilings, interior windows, interior walls, and the interior side of demising walls. Such repair and replacement may include capital expenditures and repairs whose benefit may extend beyond the Term. Should Tenant fail to make any such repair or replacement or fail to maintain the Premises, Landlord shall give Tenant notice of such failure. If Tenant fails to commence cure of such failure within 10 days of Landlord's notice, and thereafter diligently prosecute such cure to completion, Landlord may perform such work and shall be reimbursed by Tenant within 10 days after demand therefor; provided, however, that if such failure by Tenant creates or could create an emergency, Landlord may immediately commence cure of such failure and shall thereafter be entitled to recover the costs of such cure from Tenant. Subject to Section 15, Tenant shall bear the full uninsured cost of any repair or replacement to any part of the Project that results from damage caused by Tenant or any Tenant Party and any repair that benefits only the Premises.

12. **Liens.** Tenant shall discharge, by bond or otherwise, any liens filed against the Premises or against the Project arising out of work performed or claimed to have been performed, materials furnished or claimed to have been or obligations incurred or claimed to have been incurred by Tenant within 10 days after the filing thereof, at Tenant's sole cost.

13. **Indemnification.** Tenant hereby indemnifies and agrees to defend, save and hold Landlord harmless from and against any and all claims for injury or death to persons or damage to property (i) occurring within the Premises and arising directly or indirectly out of use or occupancy of the Premises, unless caused solely by the willful misconduct or negligence of Landlord, (ii) occurring outside of the Premises (including without limitation in the Shared Science Facility or Shared Conference Facility) and arising directly or indirectly out of an act or omission of Tenant, or (iii) arising directly or indirectly out of or a breach or default by Tenant in the performance of any of its obligations hereunder or under the License Agreement. Landlord shall not be liable to Tenant for, and Tenant assumes all risk of damage to, personal property (including, without limitation, loss of records kept within the Premises or any part of the Project). Tenant further waives any and all claims for injury to Tenant's business or loss of income relating to any such damage or destruction of personal property (including, without limitation, any loss of records). Landlord shall not be liable for any damages arising from any act, omission or neglect of any tenant in the Project or of any other third party.

14. **Insurance.** Landlord shall, as an Operating Expense, maintain such insurance covering the Project as Landlord shall reasonably determine. Tenant, at its sole cost and expense, shall maintain during the Term: all risk property insurance with business interruption and extra expense coverage, covering the full replacement cost of all property and improvements installed or placed in the Premises by Tenant at Tenant's expense; workers' compensation insurance with no less than the minimum limits required by law; employer's liability insurance with such limits as required by law; and commercial general liability insurance, with a minimum limit of not less than \$2,000,000 per occurrence for bodily injury and property damage with respect to the Premises, Shared Science Facility and Shared Conference Facility. The commercial general liability insurance policy shall name Landlord, its officers, directors, employees, managers, members, agents, invitees and contractors (individually, a "**Landlord Party**" and collectively, "**Landlord Parties**") and Alexandria Real Estate Equities, Inc., as additional insureds; insure on an occurrence and not a claims-made basis; be issued by insurance companies which have a rating of not less than policyholder rating of A and financial category rating of at least Class X in "Best's Insurance Guide"; shall not be cancelable for nonpayment of premium unless 30 days prior written notice shall have been given to Landlord from the insurer; contain a hostile fire endorsement and a contractual liability endorsement; and provide primary coverage to Landlord (any policy issued to Landlord providing duplicate or similar coverage shall be deemed excess over Tenant's policies). Copies of such policies (if requested by Landlord), or certificates of insurance showing the limits of coverage required hereunder

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and showing Landlord as an additional insured, along with reasonable evidence of the payment of premiums for the applicable period, shall be delivered to Landlord by Tenant upon commencement of the Term and upon each renewal of said insurance. Tenant's policy may be a "blanket policy" with an aggregate per location endorsement which specifically provides that the amount of insurance shall not be prejudiced by other losses covered by the policy. Tenant shall, at least 5 days prior to the expiration of such policies, furnish Landlord with renewal certificates.

In each instance where insurance is to name Landlord as an additional insured, Tenant shall upon written request of Landlord also designate and furnish certificates so evidencing Landlord as additional insured to: (i) any lender of Landlord holding a security interest in the Project or any portion thereof and any servicer in connection therewith, (ii) the landlord under any lease wherein Landlord is tenant of the real property on which the Project is located, if the interest of Landlord is or shall become that of a tenant under a ground or other underlying lease rather than that of a fee owner, and/or (iii) any management company retained by Landlord to manage the Project.

The property insurance obtained by Landlord and Tenant shall include a waiver of subrogation by the insurers and all rights based upon an assignment from its insured, against Landlord or Tenant, and their respective officers, directors, employees, managers, members, agents, invitees and contractors (“**Related Parties**”), in connection with any loss or damage thereby insured against. Neither party nor its respective Related Parties shall be liable to the other for loss or damage caused by any risk insured against under property insurance required to be maintained hereunder, and each party waives any claims against the other party, and its respective Related Parties, for such loss or damage. The failure of a party to insure its property shall not void this waiver. Landlord and its respective Related Parties shall not be liable for, and Tenant hereby waives all claims against such parties for, business interruption and losses occasioned thereby sustained by Tenant or any person claiming through Tenant resulting from any accident or occurrence in or upon the Premises or the Project from any cause whatsoever. If the foregoing waivers shall contravene any law with respect to exculpatory agreements, the liability of Landlord or Tenant shall be deemed not released but shall be secondary to the other’s insurer.

15. **Condemnation and Casualty.** If at any time during the Term the Premises, Common Areas or Project is in whole or in part (i) materially damaged or destroyed by a fire or other casualty, or (ii) taken for any public or quasi-public use under governmental law, ordinance, or regulation, or by right of eminent domain, or by private purchase in lieu thereof (a “**Taking**”), then this Lease shall, at the written election of Landlord delivered to Tenant within sixty (60) days following such casualty or taking, terminate as of the date of such damage, destruction or Taking. If at any time during the Term the Premises or Common Areas are in whole or in part (i) materially damaged or destroyed by a fire or other casualty, or (ii) subject to a Taking, then this Lease shall, at the written election of Tenant delivered to Landlord within sixty (60) days following such casualty or taking, terminate as of the date of such damage, destruction or Taking. Unless either Landlord or Tenant so elects to terminate this Lease, Landlord shall, subject to receipt of sufficient insurance proceeds (with any deductible to be treated as a current Operating Expense), promptly restore the Premises and Common Areas (excluding the improvements installed by Tenant or by Landlord and paid for by Tenant), subject to delays arising from the collection of insurance proceeds, from Force Majeure events or as needed to obtain any license, clearance or other authorization of any kind required to enter into and restore the Premises issued by any Governmental Authority having jurisdiction over the use, storage, handling, treatment, generation, release, disposal, removal or remediation of Hazardous Materials (as defined in Section 26) in, on or about the Premises or Common Areas (collectively referred to herein as “**Hazardous Materials Clearances**”).

If neither Tenant nor Landlord elect to terminate this Lease pursuant to the immediately preceding paragraph, Rent shall be abated from the date all required Hazardous Material Clearances are obtained until the Premises or Common Areas are repaired and restored, in the proportion which the area of the Premises, if any, which is not usable by Tenant bears to the total area of the Premises, unless Landlord provides Tenant with other space during the period of repair that is suitable for the temporary conduct of Tenant’s business. Such abatement shall be the sole remedy of Tenant, and except as provided in this Section 15, Tenant waives any right to terminate the Lease by reason of damage or casualty loss, provided that, if Landlord shall fail to restore the Premises or Common Areas within 12 months after the receipt of any Hazardous Materials Clearances determined by Landlord to be required (or if Landlord

determines that no Hazardous Materials Clearances are required, within 12 months of the end of the 60-day period referred to in the first and second sentences of the immediately preceding paragraph), Tenant shall have a further right to terminate this Lease by written notice to Landlord delivered within 60 days after the expiration of such 12-month period, provided further, that if Landlord completes such restoration within 30 days after receipt of Tenant’s termination notice, such termination notice shall be void and this Lease shall continue in full force and effect.

The provisions of this Lease, including this Section 15, constitute an express agreement between Landlord and Tenant with respect to any and all damage to, or destruction of, all or any part of the Premises, or any other portion of the Project, and any statute or regulation which is now or may hereafter be in effect shall have no application to this Lease or any damage or destruction to all or any part of the Premises or any other portion of the Project, the parties hereto expressly agreeing that this Section 15 sets forth their entire understanding and agreement with respect to such matters. Upon any fire or other casualty or Taking, Landlord shall be entitled to receive the entire proceeds of the insurance maintained by Landlord and the entire price or award from any such Taking without, in either case, any payment to Tenant, and Tenant hereby assigns to Landlord Tenant’s interest, if any, in such proceeds or award, except that Tenant shall have the right to the extent that same shall not diminish Landlord’s award, to make a separate claim against the condemning authority (but not Landlord) for such compensation as may be separately awarded or recoverable by Tenant for moving expenses and damage to Tenant’s trade fixtures, if a separate award for such items is made to Tenant.

16. **Events of Default.** Each of the following events shall be a default (“**Default**”) by Tenant under this Lease:

(a) **Payment Defaults.** Tenant shall fail to pay any installment of Rent or any other payment hereunder when due; provided, however, that Landlord will give Tenant notice and an opportunity to cure any failure to pay Rent within 5 business days of any such notice not more than once in any 12 month period and Tenant agrees that such notice shall be in lieu of and not in addition to, or shall be deemed to be, any notice required by law; provided, further, however, that no such notice or opportunity to cure shall be required for any failure by Tenant to pay the first month’s Base Rent and deliver the Security Deposit to Landlord at such time as required pursuant to Section 3(a) above.

(b) **Insurance.** Any insurance required to be maintained by Tenant pursuant to this Lease shall be canceled or terminated or shall expire or shall be reduced or materially changed, or Landlord shall receive a notice of nonrenewal of any such insurance and Tenant shall fail to obtain replacement insurance at least 20 days before the expiration of the current coverage.

(c) **Improper Transfer.** Tenant shall assign, sublease or otherwise transfer or attempt to transfer all or any portion of Tenant’s interest in this Lease or the Premises except as may be expressly permitted herein, or Tenant’s interest in this Lease shall be attached, executed upon, or otherwise judicially seized and such action is not released within 90 days of the action.

(d) **Liens.** Tenant shall fail to discharge or otherwise obtain the release of any lien upon the Premises in violation of this Lease within 10 days after any such lien is filed against the Premises.

(e) **Insolvency Events.** Tenant or any guarantor or surety of Tenant’s obligations hereunder shall: (A) make a general assignment for the benefit of creditors; (B) commence any case, proceeding or other action seeking to have an order for relief entered on its behalf as a debtor or to adjudicate it a bankrupt or insolvent, or seeking reorganization, arrangement, adjustment, liquidation, dissolution or composition of it or its debts or seeking appointment of a receiver, trustee, custodian or other similar official for it or for all or of any substantial part of its property (collectively a “**Proceeding for Relief**”); (C) become the subject of any Proceeding for Relief which is not dismissed within 90 days of its filing or entry; or (D) die or suffer a legal disability (if Tenant, guarantor, or surety is an individual) or be dissolved or otherwise fail to maintain its legal existence (if Tenant, guarantor or surety is a corporation, partnership or other entity).

(f) **Estoppel Certificate or Subordination Agreement.** Tenant fails to execute any document required from Tenant under Sections 19 or 23 within 5 days after a second notice requesting such document.

(g) **Default under License.** Tenant shall be in default or breach of any of its obligations under the License beyond any cure period as may be expressly set forth in the License.

(h) **Other Defaults.** Tenant shall fail to comply with any provision of this Lease other than those specifically referred to in this Section 16, and, except as otherwise expressly provided herein, such failure shall continue for a period of 30 days after written notice thereof from Landlord to Tenant, provided that if the nature of such default is such that it cannot be cured by the payment of money and reasonably requires more than 30 days to cure, then Tenant shall not be deemed to be in Default if Tenant commences such cure within 30 days of the aforesaid notice from Landlord and thereafter diligently prosecutes such cure to completion within 90 days of the aforesaid notice from Landlord. Any notice given under this Section 16(h) shall: (i) specify the alleged default, (ii) demand that Tenant cure such default, (iii) be in lieu of, and not in addition to, or shall be deemed to be, any notice required under any provision of applicable law, and (iv) not be deemed a forfeiture or a termination of this Lease unless Landlord elects otherwise in such notice.

17. Landlord's Remedies.

(a) **Payment By Landlord; Interest.** Upon a Default by Tenant hereunder, Landlord may, without waiving or releasing any obligation of Tenant hereunder, make such payment or perform such act that is the subject of the Default. All sums so paid or incurred by Landlord, together with interest thereon, from the date such sums were paid or incurred, at the annual rate equal to 12% per annum or the highest rate permitted by law (the "**Default Rate**"), whichever is less, shall be payable to Landlord on demand as Additional Rent. Nothing herein shall be construed to create or impose a duty on Landlord to mitigate any damages resulting from Tenant's Default hereunder.

(b) **Late Payment Rent.** Late payment by Tenant to Landlord of Rent and other sums due will cause Landlord to incur costs not contemplated by this Lease, the exact amount of which will be extremely difficult and impracticable to ascertain. Such costs include, but are not limited to, processing and accounting charges and late charges which may be imposed on Landlord under any Mortgage covering the Premises. Therefore, if any installment of Rent due from Tenant is not received by Landlord within 5 days after the date such payment is due, Tenant shall pay to Landlord an additional sum equal to 6% of the overdue Rent as a late charge. The parties agree that this late charge represents a fair and reasonable estimate of the costs Landlord will incur by reason of late payment by Tenant. In addition to the late charge, Rent not paid when due shall bear interest at the Default Rate from the 5th day after the date due until paid.

(c) **Other Remedies.** Upon and during the continuance of a Default, Landlord, at its option, without further notice or demand to Tenant, shall have in addition to all other rights and remedies provided in this Lease, at law or in equity, the option to pursue anyone or more of the following remedies, each and all of which shall be cumulative and nonexclusive, without any notice or demand whatsoever. No cure in whole or in part of such Default by Tenant after Landlord has taken any action beyond giving Tenant notice of such Default to pursue any remedy provided for herein (including retaining counsel to file an action or otherwise pursue any remedies) shall in any way affect Landlord's right to pursue such remedy or any other remedy provided Landlord herein or under law or in equity, unless Landlord, in its sole discretion, elects to waive such Default.

This Lease and the Term and estate hereby granted are Subject to the limitation that whenever a Default shall have happened and be continuing, Landlord shall have the right, at its election, then or thereafter while any such Default shall continue and notwithstanding the fact that Landlord may have some other remedy hereunder or at law or in equity, to give Tenant written notice of Landlord's intention to terminate this Lease on a date specified in such notice, which date shall be not less than 5 days after the giving of such notice, and upon the date so specified, this Lease and the estate hereby granted shall expire and

terminate with the same force and effect as if the date specified in such notice were the date hereinbefore fixed for the expiration of this Lease, and all rights of Tenant hereunder shall expire and terminate, and Tenant shall be liable as hereinafter in this Section 17(c) provided. If any such notice is given, Landlord shall have, on such date so specified, the right of re-entry and possession of the Premises and the right to remove all persons and property therefrom and to store such property in a warehouse or elsewhere at the risk and expense, and for the account, of Tenant. Should Landlord elect to re-enter as herein provided or should Landlord take possession pursuant to legal proceedings or pursuant to any notice provided for by law, Landlord may from time to time re-let the Premises or any part thereof for such term or terms and at such rental or rentals and upon such terms and conditions as Landlord may deem advisable, with the right to make commercially reasonable alterations in and repairs to the Premises.

(i) In the event of any termination of this Lease as in this Section 17 provided or as required or permitted by law or in equity, Tenant shall forthwith quit and surrender the Premises to Landlord, and Landlord may, without further notice, enter upon, re-enter, possess and repossess the same by summary proceedings, ejectment or otherwise, and again have, repossess and enjoy the same as if this Lease had not been made, and in any such event Tenant and no person claiming through or under Tenant by virtue of any law or an order of any court shall be entitled to possession or to remain in possession of the Premises. Landlord, at its option, notwithstanding any other provision of this Lease, shall be entitled to recover from Tenant, as and for liquidated damages, the sum of;

(A) all Base Rent, Additional Rent and other amounts payable by Tenant hereunder then due or accrued and unpaid; and

(B) the amount equal to the aggregate of all unpaid Base Rent and Additional Rent which would have been payable if this Lease had not been terminated prior to the end of the Term then in effect, discounted to its then present value in accordance with accepted financial practice using a rate of 5% per annum, for loss of the bargain; and

(C) all other damages and expenses (including attorneys' fees and expenses), if any, which Landlord shall have sustained by reason of the breach of any provision of this Lease; less

(D) the net proceeds of any re-letting actually received by Landlord and (ii) the amount of damages which Tenant proves could have been avoided had Landlord taken reasonable steps to mitigate its damages.

(ii) Nothing herein contained shall limit or prejudice the right of Landlord, in any bankruptcy or insolvency proceeding, to prove for and obtain as liquidated damages by reason of such termination an amount equal to the maximum allowed by any bankruptcy or insolvency proceedings, or to prove for and obtain as liquidated damages by reason of such termination, an amount equal to the maximum allowed by any statute or rule of law whether such amount shall be greater or less than the excess referred to above.

(iii) Nothing in this Section 17 shall be deemed to affect the right of either party to indemnifications pursuant to this Lease.

(iv) If Landlord terminates this Lease upon the occurrence of a Default, Tenant will quit and surrender the Premises to Landlord or its agents, and Landlord may, without further notice, enter upon, re-enter and repossess the Premises by summary proceedings, ejectment or otherwise. The words "enter", "re-enter", and "re-entry" are not restricted to their technical legal meanings.

(v) If either party shall be in default in the observance or performance of any provision of this Lease, and an action shall be brought for the enforcement thereof in which it

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shall be determined that such party was in default, the party in default shall pay to the other all fees, costs and other expenses which may become payable as a result thereof or in connection therewith, including attorneys' fees and expenses.

(vi) If Tenant shall default in the keeping, observance or performance of any covenant, agreement, term, provision or condition herein contained, Landlord, without thereby waiving such default, may perform the same for the account and at the expense of Tenant (a) immediately or at any time thereafter and without notice in the case of emergency or in case such default will result in a violation of any legal or insurance requirements, or in the imposition of any lien against all or any portion of the Premises, and (b) in any other case if such default continues after any applicable cure period provided in Section 16. All reasonable costs and expenses incurred by Landlord in connection with any such performance by it for the account of Tenant and also all reasonable costs and expenses, including attorneys' fees and disbursements incurred by Landlord in any action or proceeding (including any summary dispossess proceeding) brought by Landlord to enforce any obligation of Tenant under this Lease and/or right of Landlord in or to the Premises, shall be paid by Tenant to Landlord within 10 days after demand.

(vii) Independent of the exercise of any other remedy of Landlord hereunder or under applicable law, Landlord may conduct an environmental test of the Premises as generally described in Section 26(c), at Tenant's expense.

(viii) In the event that Tenant is in breach or Default under this Lease, whether or not Landlord exercises its right to terminate or any other remedy, Tenant shall reimburse Landlord upon demand for any costs and expenses that Landlord may incur in connection with any such breach or Default, as provided in this Section 17(c). Such costs shall include legal fees and costs incurred for the negotiation of a settlement, enforcement of rights or otherwise. Tenant shall also indemnify Landlord against and hold Landlord harmless from all costs, expenses, demands and liability, including without limitation, legal fees and costs Landlord shall incur if Landlord shall become or be made a party to any claim or action instituted by Tenant against any third party, or by or against any person holding any interest under or using the Premises by license of or agreement with Tenant.

(d) Except as otherwise provided in this Section 17, no right or remedy herein conferred upon or reserved to Landlord is intended to be exclusive of any other right or remedy, and every right and remedy shall be cumulative and in addition to any other legal or equitable right or remedy given hereunder, or now or hereafter existing. No waiver of any provision of this Lease shall be deemed to have been made unless expressly so made in writing. Landlord shall be entitled, to the extent permitted by law, to seek injunctive relief in case of the violation, or attempted or threatened violation, of any provision of this Lease, or to seek a decree compelling observance or performance of any provision of this Lease, or to seek any other legal or equitable remedy.

18. **Assignment and Subletting.**

(a) **General Prohibition.** Without Landlord's prior written consent Subject to and on the conditions described in this Section 18, Tenant shall not, directly or indirectly, voluntarily or by operation of law, assign this Lease or sublease the Premises or any part thereof or mortgage, pledge, or hypothecate its leasehold interest or grant any concession or license within the Premises, and any attempt to do any of the foregoing shall be void and of no effect. If Tenant is a corporation, partnership or limited liability company, the shares or other ownership interests thereof which are not actively traded upon a stock exchange or in the over-the-counter market, a transfer or series of transfers whereby 50% or more of the issued and outstanding shares or other ownership interests of such corporation are, or voting control is, transferred (but excepting transfers upon deaths of individual owners) from a person or persons or entity or entities which were owners thereof at time of execution of this Lease to persons or entities who were not owners of shares or other ownership interests of the corporation, partnership or limited liability company at time of execution of this Lease, shall be deemed an assignment of this Lease requiring the consent of Landlord as provided in this Section 18. Notwithstanding the foregoing, any

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public offering of shares or other ownership interest in Tenant or any private equity financing by one or more investors who regularly invest in private biotechnology companies, for which Tenant has given Landlord prior written notice, shall not be deemed an assignment. Such prior written notice shall be treated by Landlord as confidential information subject to Section 37(i) below.

(b) **Permitted Transfers.** If Tenant desires to assign, sublease (in whole or in part), hypothecate or otherwise transfer this Lease or sublet the Premises, other than pursuant to a Permitted Assignment (as defined below), then at least 15 business days, but not more than 45 business days, before the date Tenant desires the assignment or sublease to be effective (the "**Assignment Date**"), Tenant shall give Landlord a notice (the "**Assignment Notice**") containing such information about the proposed assignee or sublessee, including the proposed use of the Premises and any Hazardous Materials proposed to be used, stored handled, treated, generated in or released or disposed of from the Premises, the Assignment Date, any relationship between Tenant and the

proposed assignee or sublessee, and all material terms and conditions of the proposed assignment or sublease, including a copy of any proposed assignment or sublease in its final form, and such other information as Landlord may deem reasonably necessary or appropriate to its consideration whether to grant its consent. Landlord may, by giving written notice to Tenant within 15 business days after receipt of the Assignment Notice: (i) grant such consent, (ii) refuse such consent, in its sole and absolute discretion, to any proposed assignment, hypothecation or other transfer other than a Subletting, (iii) refuse such consent, in its reasonable discretion, to a proposed subletting (provided that Landlord shall further have the right to review and approve or disapprove the proposed form of sublease prior to the effective date of any such subletting), or (iv) with respect to any proposed assignment, hypothecation or transfer, or with respect to any proposed subletting for the remainder of the Term of more than 50% of the Premises (taken together with any prior sublettings), terminate this Lease with respect to the space described in the Assignment Notice as of the Assignment Date (an “**Assignment Termination**”). If Landlord delivers notice of its election to exercise an Assignment Termination, Tenant shall have the right to withdraw such Assignment Notice by written notice to Landlord of such election within 5 business days after Landlord’s notice electing to exercise the Assignment Termination. If Tenant withdraws such Assignment Notice, this Lease shall continue in full force and effect. If Tenant does not withdraw such Assignment Notice, this Lease, and the term and estate herein granted, shall terminate as of the Assignment Date with respect to the space described in such Assignment Notice. No failure of Landlord to exercise any such option to terminate this Lease, or to deliver a timely notice in response to the Assignment Notice, shall be deemed to be Landlord’s consent to the proposed assignment, sublease or other transfer. Tenant shall pay to Landlord a fee equal to One Thousand Five Hundred Dollars (\$1,500) in connection with its consideration of any Assignment Notice and/or its preparation or review of any consent documents.

(c) In considering whether or not to consent to any proposed sublease under clause (iii) of Section 18(b) above, Landlord shall be deemed to have acted reasonably if consent is refused for any of the following reasons: (A) the business or financial reputation of the proposed sublessee, or the business or financial reputation of any of the respective principals or officers thereof, is objectionable in Landlord’s judgment, (B) the proposed sublessee is engaged in areas of scientific research or other business concerns that are reasonably likely in Landlord’s judgment to attract negative publicity about, or protest at, the Building, or its proposed use of the Premises will violate any applicable Legal Requirement, (C) the proposed sublessee is at that time an occupant of the Project (and Landlord has comparable available space in the Project) or negotiating with Landlord or an affiliate thereof for the lease of other space in the Project, (D) the proposed sublessee does not have a creditworthiness, as of the date of transfer, sufficient to support the financial obligations it would incur under the proposed sublease in Landlord’s judgment, (E) the proposed sublessee is a governmental agency, (F) in Landlord’s judgment the use of the Premises by the proposed sublessee would entail any alterations that would lessen the value of the leasehold improvements in the Premises, or would require increased services by Landlord, (G) Landlord has received from any other landlord to the proposed sublessee a negative report concerning such other landlord’s experience with the proposed sublessee, (H) Landlord has experienced previous defaults by or is in litigation with the proposed sublessee, (I) the proposed sublease will create a vacancy elsewhere in the Project or at any other property owned in whole or in part by Landlord or any of its affiliates and located in Massachusetts, or (J) the sublease is prohibited by Landlord’s lender, if any.

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(d) Notwithstanding the foregoing, (i) Landlord’s consent to an assignment of this Lease or a subletting of any portion of the Premises to any entity controlling, controlled by or under common control with Tenant shall not be required, provided that Landlord shall have the right to reasonably approve the form of any such sublease or assignment; and (ii) Tenant shall have the right to assign this Lease, upon 10 days prior written notice to Landlord but without obtaining Landlord’s prior written consent, to a corporation or other entity which is a successor-in-interest to Tenant, by way of merger, consolidation or corporate reorganization, or by the purchase of all or substantially all of the assets or the ownership interests of Tenant provided that (i) such merger or consolidation, or such acquisition or assumption, as the case may be, is for a good business purpose and not principally for the purpose of transferring the Lease, and (ii) the net worth (as determined in accordance with generally accepted accounting principles (“**GAAP**”)) of the assignee is not less than the net worth (as determined in accordance with GAAP) of Tenant as of the date of Tenant’s most current quarterly or annual financial statements, and (iii) such assignee shall agree in writing to assume all of the terms, covenants and conditions of this Lease arising after the effective date of the assignment. The subletting and assignment described in clauses (i) and (ii) of this paragraph are referred to as a “**Permitted Assignment**.”

(e) **Additional Conditions.** As a condition to any such assignment or subletting, whether or not Landlord’s consent is required, Landlord may require:

(i) that any assignee or subtenant agree, in writing at the time of such assignment or subletting, that if Landlord gives such party notice that Tenant is in default under this Lease, such party shall thereafter make all payments otherwise due Tenant directly to Landlord, which payments will be received by Landlord without any liability except to credit such payment against those due under the Lease, and any such third party shall agree to attorn to Landlord or its successors and assigns should this Lease be terminated for any reason; provided, however, in no event shall Landlord or its successors or assigns be obligated to accept such attornment; and

(ii) a list of Hazardous Materials, certified by the proposed assignee or sublessee to be true and correct, which the proposed assignee or sublessee intends to use, store, handle, treat, generate in or release or dispose of from the Premises, together with copies of all documents relating to such use, storage, handling, treatment, generation, release or disposal of Hazardous Materials by the proposed assignee or subtenant in the Premises or on the Project, prior to the proposed assignment or subletting, including, without limitation: permits; approvals; reports and correspondence; storage and management plans; plans relating to the installation of any storage tanks to be installed in or under the Project (provided, said installation of tanks shall only be permitted after Landlord has given its written consent to do so, which consent may be withheld in Landlord’s sole and absolute discretion); and all closure plans or any other documents required by any and all federal, state and local Governmental Authorities for any storage tanks installed in, on or under the Project for the closure of any such tanks. Neither Tenant nor any such proposed assignee or subtenant is required, however, to provide Landlord with any portion(s) of the such documents containing information of a proprietary nature which, in and of themselves, do not contain a reference to any Hazardous Materials or hazardous activities.

(f) **No Release of Tenant, Sharing of Excess Rents.** Notwithstanding any assignment or subletting, Tenant and any guarantor or surety of Tenant’s obligations under this Lease shall at all times remain fully and primarily responsible and liable for the payment of Rent and for compliance with all of Tenant’s other obligations under this Lease. If the Rent due and payable by a sublessee or assignee (or a combination of the rental payable under such sublease or assignment plus any bonus or other consideration therefor or incident thereto in any form) exceeds the sum of the rental payable under this Lease, which shall be prorated for a sublease of less than all of the Premises (excluding however, any Rent payable under this Section) and actual and reasonable brokerage fees, free rent included as an inducement, legal costs and any design or construction fees directly related to and required pursuant to the terms of any such sublease or any reasonable services fees payable by subtenant to Tenant for the costs to Tenant to provide typical office services such as coffee machines, telephones and fax machines) (“**Excess Rent**”), then Tenant shall be bound and obligated to pay Landlord as Additional Rent hereunder 50% of such Excess Rent within 10 days following receipt thereof by Tenant. If Tenant shall sublet the Premises or any part thereof, Tenant hereby immediately and irrevocably assigns to Landlord, as security

for Tenant's obligations under this Lease, all rent from any such subletting, and Landlord as assignee and as attorney-in-fact for Tenant, or a receiver for Tenant appointed on Landlord's application, may collect such rent and apply it toward Tenant's obligations under this Lease; except that, until the occurrence of a Default, Tenant shall have the right to collect such rent.

(g) **No Waiver.** The consent by Landlord to an assignment or subletting shall not relieve Tenant or any assignees of this Lease or any sublessees of the Premises from obtaining the consent of Landlord to any further assignment or subletting nor shall it release Tenant or any assignee or sublessee of Tenant from full and primary liability under the Lease. The acceptance of Rent hereunder, or the acceptance of performance of any other term, covenant, or condition thereof, from any other person or entity shall not be deemed to be a waiver of any of the provisions of this Lease or a consent to any subletting, assignment or other transfer of the Premises.

(h) **Prior Conduct of Proposed Transferee.** Notwithstanding any other provision of this Section 18, if (i) the proposed assignee or sublessee of Tenant has been required by any prior landlord, lender or Governmental Authority to take remedial action in connection with Hazardous Materials contaminating a property, where the contamination resulted from such party's action or use of the property in question, (ii) the proposed assignee or sublessee is subject to an enforcement order issued by any Governmental Authority in connection with the use, storage, handling, treatment, generation, release or disposal of Hazardous Materials (including, without limitation, any order related to the failure to make a required reporting to any Governmental Authority), or (iii) because of the existence of a pre-existing environmental condition in the vicinity of or underlying the Project, the risk that landlord would be targeted as a responsible party in connection with the remediation of such pre-existing environmental condition would be materially increased or exacerbated by the proposed use of Hazardous Materials by such proposed assignee or sublessee, Landlord shall have the absolute right to refuse to consent to any assignment or subletting to any such party.

19. **Estoppel Certificate.** Tenant shall, within 10 business days of written notice from Landlord, execute, acknowledge and deliver an estoppel certificate on any form reasonably requested by a proposed lender or purchaser.

20. **Quiet Enjoyment.** So long as Tenant shall perform all of the covenants and agreements herein required to be performed by Tenant, Tenant shall, subject to the terms of this Lease, at all times during the Term, have peaceful and quiet enjoyment of the Premises against any person claiming by, through or under landlord.

21. **Prorations.** All prorations required or permitted to be made hereunder shall be made on the basis of a 360-day year and 30-day months.

22. **Rules and Regulations.** Tenant shall, at all times during the Term and any extension thereof, comply with all reasonable rules and regulations at any time or from time to time established by Landlord covering use of the Premises and the Project. The current rules and regulations are attached hereto as **Exhibit I**. If there is any conflict between said rules and regulations and other provisions of this Lease, the terms and provisions of this Lease shall control. Landlord shall not have any liability or obligation for the breach of any rules or regulations by other tenants in the Project and shall not enforce such rules and regulations in a discriminatory manner.

23. **Subordination.** This Lease and Tenant's interest and rights hereunder are and shall be subject and subordinate at all times to the lien of any Mortgage now existing or hereafter created on or against the Project or the Premises, and all amendments, restatements, renewals, modifications, consolidations, refinancing, assignments and extensions thereof, without the necessity of any further instrument or act on the part of Tenant. Tenant agrees, at the election of the Holder of any such Mortgage, to attorn to any such Holder. Tenant agrees within 10 business days after demand to execute, acknowledge and deliver such instruments confirming such subordination and/or attornment as shall be requested by any such Holder. Upon request of Tenant, Landlord shall use commercially reasonable efforts to obtain from any future Holder of a Mortgage on the Project, if any, an agreement of non-

disturbance, which agreement may also contain provisions for subordination, attornment and other terms and conditions of Holder. The term "**Mortgage**" whenever used in this Lease shall be deemed to include deeds of trust, security assignments, ground leases or other superior leases and any other encumbrances, and any reference to the "**Holder**" of a Mortgage shall be deemed to include the beneficiary under a deed of trust. Landlord represents that the Project is currently not encumbered by a Mortgage as of the date of this Lease.

24. **Surrender.** Upon the expiration of the Term or earlier termination of Tenant's right of possession, Tenant shall surrender the Premises to Landlord in the same condition as received, subject to any Alterations or Installations permitted by Landlord or required to remain in the Premises in accordance with Section 10, free of Hazardous Materials brought upon, kept, used, stored, handled, treated, generated in, or released or disposed of from, the Premises by any person other than Landlord or any Landlord Party (collectively, "**Tenant HazMat Operations**") and released of all Hazardous Materials Clearances, broom clean, ordinary wear and tear and casualty loss and condemnation covered by Section 15 excepted. At least 2 months prior to the surrender of the Premises, Tenant shall deliver to Landlord a narrative description of the actions proposed (or required by any Governmental Authority) to be taken by Tenant in order to surrender the Premises at the expiration or earlier termination of the Term, free from any residual impact from the Tenant HazMat Operations and otherwise released for unrestricted use and occupancy (the "**Surrender Plan**"). Such Surrender Plan shall be accompanied by a listing of (i) all Hazardous Materials licenses and permits held by or on behalf of any Tenant Party with respect to the Premises, and (ii) all Hazardous Materials used, stored, handled, treated, generated, released or disposed of from the Premises, and shall be subject to the review and approval of Landlord's environmental consultant. In connection with the review and approval of the Surrender Plan, upon the request of Landlord, Tenant shall deliver to Landlord or its consultant such additional non-proprietary information concerning Tenant HazMat Operations as Landlord shall request. On or before such surrender, Tenant shall deliver to Landlord evidence that the approved Surrender Plan shall have been satisfactorily completed and Landlord shall have the right, subject to reimbursement at Tenant's expense as set forth below, to cause Landlord's environmental consultant to inspect the Premises and perform such additional procedures as may be deemed reasonably necessary to confirm that the Premises are, as of the effective date of such surrender or early termination of the Lease, free from any residual impact from Tenant HazMat Operations. Tenant shall reimburse Landlord, as Additional Rent, for the actual out-of-pocket expense incurred by Landlord for Landlord's environmental consultant to review and approve the Surrender Plan and to visit the Premises and verify satisfactory completion of the same, which cost shall not exceed \$1,500. Landlord shall have the unrestricted right to deliver such Surrender Plan and any report by Landlord's environmental consultant with respect to the surrender of the Premises to third parties.

If Tenant shall fail to prepare or submit a Surrender Plan approved by Landlord, or if Tenant shall fail to complete the approved Surrender Plan, or if such Surrender Plan, whether or not approved by Landlord, shall fail to adequately address any residual effect of Tenant HazMat Operations in, on or about the Premises, Landlord shall have the right to take such actions as Landlord may deem reasonable or appropriate to assure that the Premises and the Project are surrendered free from any residual impact from Tenant HazMat Operations, the cost of which actions shall be reimbursed by Tenant as Additional Rent, without regard to the limitation set forth in the first paragraph of this Section 24.

Tenant shall immediately return to Landlord all keys and/or access cards to parking, the Project, restrooms or all or any portion of the Premises furnished to or otherwise procured by Tenant. If any such access card or key is lost, Tenant shall pay to Landlord, at Landlord's election, either the cost of replacing such lost access card or key or the cost of reprogramming the access security system in which such access card was used or changing the lock or locks opened by such lost key. Any Tenant's Property, Alterations and property not so removed by Tenant as permitted or required herein shall be deemed abandoned and may be stored, removed, and disposed of by Landlord at Tenant's expense, and Tenant waives all claims against Landlord for any damages resulting from Landlord's retention and/or disposition of such property. All obligations of Tenant hereunder not fully performed as of the termination of the Term, including the obligations of Tenant under Section 26 hereof, shall survive the expiration or earlier termination of the Term, including, without limitation, indemnity obligations, payment obligations with respect to Rent and obligations concerning the condition and repair of the Premises.

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25. **Waiver of Jury Trial.** TENANT AND LANDLORD WAIVE ANY RIGHT TO TRIAL BY JURY OR TO HAVE A JURY PARTICIPATE IN RESOLVING ANY DISPUTE, WHETHER SOUNDING IN CONTRACT, TORT, OR OTHERWISE, BETWEEN LANDLORD AND TENANT ARISING OUT OF THIS LEASE OR ANY OTHER INSTRUMENT, DOCUMENT, OR AGREEMENT EXECUTED OR DELIVERED IN CONNECTION HERewith OR THE TRANSACTIONS RELATED HERETO.

26. **Environmental Requirements.**

(a) **Prohibition/Compliance/Indemnity.** Tenant shall not cause or permit any Hazardous Materials (as hereinafter defined) to be brought upon, kept, used, stored, handled, treated, generated in or about, or released or disposed of from, the Premises, Shared Science Facility or any other part of the Project in violation of applicable Environmental Requirements (as hereinafter defined) by Tenant or any Tenant Party. If Tenant breaches the obligation stated in the preceding sentence, or if the presence of Hazardous Materials in the Premises during the Term or any holding over results in contamination of the Premises, the Project or any adjacent property or if contamination of the Premises, the Project or any adjacent property by Hazardous Materials brought into, kept, used, stored, handled, treated, generated in or about, or released or disposed of from, the Premises or Shared Science Facility by anyone other than Landlord or any Landlord Party otherwise occurs during the Term or any holding over, Tenant hereby indemnifies and shall defend and hold Landlord and each of the Landlord Parties harmless from any and all actions (including, without limitation, remedial or enforcement actions of any kind, administrative or judicial proceedings, and orders or judgments arising out of or resulting therefrom), costs, claims, damages (including, without limitation, punitive damages and damages based upon diminution in value of the Premises or the Project, or the loss of, or restriction on, use of the Premises or any portion of the Project), expenses (including, without limitation, attorneys', consultants' and experts' fees, court costs and amounts paid in settlement of any claims or actions), fines, forfeitures or other civil, administrative or criminal penalties, injunctive or other relief (whether or not based upon personal injury, property damage, or contamination of, or adverse effects upon, the environment, water tables or natural resources), liabilities or losses (collectively, "**Environmental Claims**") which arise during or after the Term as a result of such breach by Tenant of its obligations stated in the preceding sentence or as a result of such contamination. This indemnification of Landlord by Tenant includes, without limitation, costs incurred in connection with any investigation of site conditions or any cleanup, treatment, remedial, removal, or restoration work required by any federal, state or local Governmental Authority because of Hazardous Materials present in the air, soil or ground water above, on, or under the Premises. Without limiting the foregoing, if the presence of any Hazardous Materials on the Premises, the Shared Science Facility, the Project or any adjacent property caused or permitted by Tenant or any Tenant Party results in any contamination of the Premises, the Shared Science Facility, the Project or any adjacent property, Tenant shall promptly take all actions at its sole expense and in accordance with applicable Environmental Requirements as are necessary to return the Premises, the Shared Science Facility, the Project or any adjacent property to the condition existing prior to the time of such contamination, provided that Landlord's approval of such action shall first be obtained, which approval shall not unreasonably be withheld so long as such actions would not potentially have any material adverse long-term or short-term effect on the Premises, the Shared Science Facility or the Project. Notwithstanding anything to the contrary contained in this Section 26(a), Tenant shall not be responsible for the clean up or remediation of, and the indemnification and hold harmless obligation set forth in this paragraph shall not apply to contamination on the Project or in the Premises that Tenant can demonstrate to Landlord's reasonable satisfaction was present on the Project or in the Premises prior to the date of this Lease or in the case of contamination in the Shared Science Facility or Shared Conference Facility was not caused by an act or omission of Tenant, except in any case to the extent Tenant and/or any of the Tenant Parties have exacerbated or contributed to such contamination, and provided that it is understood that Tenant shall have the burden of proof with respect to whether such contamination was present on the Project or in the Premises prior to the date of this Lease or whether such contamination in the Shared Science Facility or Shared Conference Facility was not caused by an act or omission of Tenant.

(b) **Business.** As a material inducement to Landlord to allow Tenant to use Hazardous Materials in connection with its business, Tenant agrees to deliver to Landlord, prior to Tenant's use of any portion of the Premises for laboratory purposes, a list identifying each type of Hazardous Materials to be brought upon, kept, used, stored, handled, treated, generated on, or released or disposed of from, the

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Premises with respect to which Tenant is required to deliver notice to any Governmental Authority (e.g., the fire department) and setting forth any and all governmental approvals or permits required in connection with the presence, use, storage, handling, treatment, generation, release or disposal of such Hazardous Materials on or from the Premises ("**Hazardous Materials List**"). Tenant shall deliver to Landlord an updated Hazardous Materials List at any additional time that Tenant is required to deliver a Hazardous Materials List to any Governmental Authority (e.g., the fire department) in connection with its use or occupancy of the Premises. Tenant shall deliver to Landlord true and correct copies of the following documents (the "**Haz Mat Documents**") relating to the use, storage, handling, treatment, generation, release or disposal of Hazardous Materials prior to the Commencement Date (or if unavailable at that time, concurrent with the receipt from or submission to a Governmental Authority): permits; approvals; reports and correspondence; storage and management plans; and notices of violations of any Legal Requirements. Tenant hereby represents and warrants to Landlord that (i) Tenant has not been required by any prior landlord or governmental authority to take remedial action in connection with Hazardous Materials contaminating a property, where the contamination resulted from such party's action or use of the property in question; and (ii) Tenant is not subject to an enforcement order issued by any governmental authority in connection with the use, storage, handling, treatment, generation, release or disposal of Hazardous Materials. If Landlord determines that this representation and warranty was not true as of the date of this lease, Landlord shall have the right to terminate this Lease in Landlord's sole and absolute discretion. Tenant shall be permitted, however, to redact any portions(s) of the Haz Mat Documents containing information of a proprietary nature which, in

and of themselves, do not contain a reference to any Hazardous Materials or hazardous activities. It is not the intent of this Section to provide landlord with information which could be detrimental to Tenant's business should such information become possessed by Tenant's competitors.

(c) **Landlord's Tests.** Landlord shall have access to, and a right to perform inspections and tests of, the Premises and the Shared Science Facility to determine Tenant's compliance with Environmental Requirements, its obligations under this Section 26, or the environmental condition of the Premises, the Shared Science Facility or the Project. In connection with such testing, upon the request of Landlord, Tenant shall deliver to Landlord or its consultant such non-proprietary information concerning the use of Hazardous Materials in or about the Premises and Shared Science Facility by Tenant or any Tenant Party. Access to the Premises shall be granted to landlord upon Landlord's prior notice to Tenant and at such times so as to minimize, So far as may be reasonable under the circumstances, any disturbance to Tenant's operations. Such inspections and tests shall be conducted at Landlord's expense, unless such inspections or tests reveal that Tenant has not complied with any Environmental Requirement, in which case Tenant shall reimburse Landlord for the reasonable cost of such inspection and tests. Tenant shall, at its sole cost and expense, promptly and satisfactorily remediate any environmental conditions for which Tenant is responsible pursuant to this Section 26 and that are identified by such testing in accordance with all Environmental Requirements. Landlord's receipt of or satisfaction with any environmental assessment in no way waives any rights that Landlord may have against Tenant.

(d) **Tenant's Obligations.** Tenant's obligations under this Section 26 shall survive the expiration or earlier termination of the Lease. During any period of time after the expiration or earlier termination of this lease required by Tenant or landlord to complete the removal from the Premises of any Hazardous Materials for which Tenant is responsible under this Lease (including, without limitation, the release and termination of any licenses or permits restricting the use of the Premises and the completion of the approved Surrender Plan), Tenant shall continue to pay the full Rent in accordance with this lease for any portion of the Premises not relet by Landlord in landlord's sole discretion, which Rent shall be prorated daily.

(e) **Definitions.** As used herein, the term "**Environmental Requirements**" means all applicable present and future statutes, regulations, ordinances, rules. codes, judgments, orders or other similar enactments of any Governmental Authority regulating or relating to health, safety, or environmental conditions on, under, or about the Premises or the Project, or the environment, including, without limitation, the following: the Comprehensive Environmental Response. Compensation and Liability Act; the Resource Conservation and Recovery Act; and all state and local counterparts thereto, and any regulations or policies promulgated or issued thereunder. As used herein, the term "**Hazardous**

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Materials" means and includes any substance, material, waste, pollutant, or contaminant listed or defined as hazardous or toxic, or regulated by reason of its impact or potential impact on humans, animals and/or the environment under any Environmental Requirements, asbestos and petroleum, including crude oil or any fraction thereof, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas). As defined in Environmental Requirements. Tenant is and shall be deemed to be the "**operator**" of Tenant's "**facility**" and the "**owner**" of all Hazardous Materials brought on the Premises by Tenant or any Tenant Party, and the wastes. by-products. or residues generated, resulting, or produced therefrom.

(f) **Asbestos.**

(i) **Notification of Asbestos.** Landlord hereby notifies Tenant of the presence of asbestos-containing materials ("**ACMs**") and/or presumed asbestos-containing materials ("**PACMs**") within or about the Premises in the locations identified in **Exhibit J** attached hereto.

(ii) **Tenant Acknowledgement.** Tenant hereby acknowledges receipt of the notification in paragraph (i) of this Section 26 and understand that the purpose of such notification is to make Tenant, and any agents, employees, and contractors of Tenant, aware of the presence of ACMs and/or PACMs within or about the Building in order to avoid or minimize any damage to or disturbance of such ACMs and/or PACMs.

NF Tenant's Initials

(iii) **Acknowledgement from Contractors/Employees.** Tenant shall give Landlord at least 14 days' prior written notice before conducting, authorizing or permitting any of the activities listed below within or about the Premises, and before soliciting bids from any person to perform such services. Such notice shall identify or describe the proposed scope, location, date and time of such activities and the name, address and telephone number of each person who may be conducting such activities. Thereafter, Tenant shall grant Landlord reasonable access to the Premises to determine whether any ACMs or PACMs will be disturbed in connection with such activities. Tenant shall not solicit bids from any person for the performance of such activities without Landlord's prior written approval (such approval not to be unreasonably withheld). Upon Landlord's request, Tenant shall deliver to Landlord a copy of a signed acknowledgement from any contractor, agent, or employee of Tenant acknowledging receipt of information describing the presence of ACMs and/or PACMs within or about the Premises in the locations identified in **Exhibit J** prior to the commencement of such activities. Nothing in this Section 26 shall be deemed to expand Tenant's rights under the Lease or otherwise to conduct, authorize or permit any such activities.

(A) Removal of thermal system insulation ("**TSI**") and surfacing ACMs and PACMs (i.e., sprayed-on or troweled-on material, e.g., textured ceiling paint or fireproofing material);

(B) Removal of ACMs or PACMs that are not TSI or surfacing ACMs or PACMs; or

(C) Repair and maintenance of operations that are likely to disturb ACMs or PACMs.

27. **Tenants Remedies/Limitation of Liability.** Landlord shall not be in default hereunder unless Landlord fails to perform any of its obligations hereunder within 30 days after written notice from Tenant specifying such failure (unless such performance will, due to the nature of the obligation, require a period of time in excess of 30 days, then after such period of time as is reasonably necessary), provided, however, that if the nature of Landlord's obligation arises from an emergency condition and Tenant provides notice to Landlord (which may be telephonic if followed by written notice on the same day describing the emergency condition in reasonable detail, including without limitation the emergency

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nature of the condition and specifying in all capital letters and boldface type that the condition is an emergency and response is required by Landlord pursuant to the Lease), then Landlord shall respond within a reasonable period after receipt of such notice of the emergency condition. Upon any default by Landlord, Tenant shall give notice by registered or certified mail to any Holder of a Mortgage covering the Premises and to any landlord of any lease of property in or on which the Premises are located and Tenant shall offer such Holder and/or landlord a reasonable opportunity to cure the default, including time to obtain possession of the Project by power of sale or a judicial action if such should prove necessary to effect a cure; provided Landlord shall have furnished to Tenant in writing the names and addresses of all such persons who are to receive such notices. All obligations of Landlord hereunder shall be construed as covenants, not conditions; and, except as may be otherwise expressly provided in this Lease, Tenant may not terminate this Lease for breach of Landlord's obligations hereunder.

28. **Inspection and Access.** Subject to the next sentence, Landlord and its agents, representatives, and contractors may enter the Premises at any reasonable time to inspect the Premises and to make such repairs as may be required or permitted pursuant to this Lease, to perform such environmental tests as may be reasonably required to confirm Tenant's compliance with the terms hereof and for any other business purpose. Landlord and Landlord's representatives may enter the Premises during business hours on not less than 48 hours advance written notice (except in the case of emergencies in which case no such notice shall be required and such entry may be at any time) for the purpose of effecting any such repairs, inspecting the Premises, showing the Premises to prospective purchasers and, during the last year of the Term, to prospective tenants or for any other business purpose.

29. **Security.** Tenant acknowledges and agrees that security devices and services, if any, while intended to deter crime may not in given instances prevent theft or other criminal acts and that Landlord is not providing any security services with respect to the Premises, Shared Science Facility, Shared Conference Facility or Common Areas. Tenant agrees that Landlord shall not be liable to Tenant for, and Tenant waives any claim against Landlord with respect to, any loss by theft or any other damage suffered or incurred by Tenant in connection with any unauthorized entry into the Premises, Shared Science Facility, Shared Conference Facility or Common Areas or any other breach of security with respect to the Premises, Shared Science Facility, Shared Conference Facility, Common Areas or other portion of the Project. Tenant shall be solely responsible for the personal safety of Tenant's officers, employees, agents, contractors, guests and invitees while any such person is in, on or about the Premises and/or the Project. Tenant shall at Tenant's cost obtain insurance coverage to the extent Tenant desires protection against such criminal acts.

30. **No Broker; Entire Agreement; Amendment.** Landlord and Tenant each represents and warrants that it has not dealt with any broker, agent or other person (collectively, "**Broker**") in connection with this transaction and that no Broker brought about this transaction, other than Cushman & Wakefield of Massachusetts and Richards Barry Joyce & Partners, whose commission shall be paid by Landlord pursuant to a separate agreement. Landlord and Tenant each hereby agree to indemnify and hold the other harmless from and against any claims by any Broker, other than the broker, if any named in this Section 30, claiming a commission or other form of compensation by virtue of having dealt with Tenant or Landlord, as applicable, with regard to this leasing transaction. This Lease constitutes the entire agreement between Landlord and Tenant pertaining to the lease of the Premises and supersedes all other agreements, whether oral or written, pertaining to the lease of the Premises, and no other agreements with respect thereto shall be effective. Any amendments or modifications of this Lease shall be in writing and signed by both Landlord and Tenant, and any other attempted amendment or modification of this Lease shall be void.

31. **Limitation on Landlord's Liability.** NOTWITHSTANDING ANYTHING SET FORTH HEREIN OR IN ANY OTHER AGREEMENT BETWEEN LANDLORD AND TENANT TO THE CONTRARY: (A) LANDLORD SHALL NOT BE LIABLE TO TENANT OR ANY OTHER PERSON FOR (AND TENANT AND EACH SUCH OTHER PERSON ASSUME ALL RISK OF) LOSS, DAMAGE OR INJURY, WHETHER ACTUAL OR CONSEQUENTIAL TO: TENANT'S PERSONAL PROPERTY OF EVERY KIND AND DESCRIPTION, INCLUDING, WITHOUT LIMITATION TRADE FIXTURES, EQUIPMENT, INVENTORY, SCIENTIFIC RESEARCH, SCIENTIFIC EXPERIMENTS, LABORATORY

ANIMALS, PRODUCT, SPECIMENS, SAMPLES, AND/OR SCIENTIFIC, BUSINESS, ACCOUNTING AND OTHER RECORDS OF EVERY KIND AND DESCRIPTION KEPT AT THE PREMISES AND ANY AND ALL INCOME DERIVED OR DERIVABLE THEREFROM; (B) THERE SHALL BE NO PERSONAL RECOURSE TO LANDLORD FOR ANY ACT OR OCCURRENCE IN, ON OR ABOUT THE PREMISES OR ARISING IN ANY WAY UNDER THIS LEASE OR ANY OTHER AGREEMENT BETWEEN LANDLORD AND TENANT WITH RESPECT TO THE SUBJECT MATTER HEREOF AND ANY LIABILITY OF LANDLORD HEREUNDER SHALL BE STRICTLY LIMITED SOLELY TO LANDLORD'S INTEREST IN THE PROJECT OR ANY PROCEEDS FROM SALE OR CONDEMNATION THEREOF AND ANY INSURANCE PROCEEDS PAYABLE IN RESPECT OF LANDLORD'S INTEREST IN THE PROJECT OR IN CONNECTION WITH ANY SUCH LOSS; AND (C) IN NO EVENT SHALL ANY PERSONAL LIABILITY BE ASSERTED AGAINST LANDLORD OR ITS OFFICERS, DIRECTORS, EMPLOYEES, AGENTS OR CONTRACTORS IN CONNECTION WITH THIS LEASE NOR SHALL ANY RECOURSE BE HAD TO ANY OTHER PROPERTY OR ASSETS OF LANDLORD OR ANY OF LANDLORD'S OFFICERS, DIRECTORS, EMPLOYEES, AGENTS OR CONTRACTORS. UNDER NO CIRCUMSTANCES SHALL LANDLORD OR ANY OF LANDLORD'S OFFICERS, DIRECTORS, EMPLOYEES, AGENTS OR CONTRACTORS BE LIABLE FOR INJURY TO TENANTS BUSINESS OR FOR ANY LOSS OF INCOME OR PROFIT THEREFROM.

32. **Severability.** If any clause or provision of this Lease is illegal, invalid or unenforceable under present or future laws, then and in that event, it is the intention of the parties hereto that the remainder of this Lease shall not be affected thereby.

33. **Signs; Exterior Appearance.** Tenant shall not: (i) attach anything at any time to any outside wall of the Project, (ii) use any window coverings or sunscreen other than Landlord's standard window coverings, (iii) place any articles on the window sills, (iv) place any items on any exterior balcony, or (v) paint, affix or exhibit any signs or any kind in the Premises which can be viewed from the exterior of the Premises. Interior signs on doors and the directory tablet, in each case in Building standard form, shall be provided by Landlord at Landlord's sole cost and expense.

34. **Intentionally Omitted.**

35. **Right to Extend Term.** Tenant shall have the right to extend the Term of the Lease upon the following terms and conditions:

(a) **Extension Right.** Tenant shall have one right (the "**Extension Right**") to extend the term of this Lease for 2 years (the "**Extension Term**") on the same terms and conditions as this Lease (other than Base Rent) by giving Landlord written notice of its election to exercise the Extension Right at least 9 months prior to the expiration of the original Term of the Lease. Promptly after receipt of Tenant's exercise notice, Landlord shall provide Tenant with Landlord's determination of the Market Rate for the Extension Term.

Upon the commencement of the Extension Term, Base Rent shall be payable at the Market Rate (as defined below). Base Rent shall thereafter be adjusted on each annual anniversary of the commencement of such Extension Term by the Rent Adjustment Amount as provided in Section 3 above. As used herein, “**Market Rate**” shall mean the then market rental rate for combined laboratory and office space in East Cambridge of comparable age, quality, level of finish and proximity to amenities and public transit, which shall in no event be less than the Base Rent payable as of the date immediately preceding the commencement of the Extension Term. The Market Rate shall initially be determined by Landlord and submitted to Tenant for its consideration. If, on or before the date which is 210 days prior to the expiration of the original Term of this Lease, Tenant has not agreed with Landlord’s determination of the Market Rate after negotiating in good faith, Tenant may by written notice to Landlord not later than 180 days prior to the expiration of the original Term of this Lease, elect arbitration as described in Section 35(b) below. If Tenant has not agreed with Landlord’s determination of the Market Rate and does not elect such arbitration prior to the date that is 180 days prior to the expiration of the original Term, Tenant shall be deemed to have waived any right to extend.

(b) **Arbitration.** Within 10 days of Tenant’s notice to Landlord of its election to arbitrate Market Rate, each party shall deliver to the other a proposal containing the Market Rate that the submitting party believes to be correct (“**Extension Proposal**”). If either party fails to timely submit an Extension Proposal, the other party’s submitted proposal shall determine the Base Rent for the Extension Term. If both parties submit Extension Proposals, then Landlord and Tenant shall meet within 7 days after delivery of the last Extension Proposal and make a good faith attempt to mutually appoint a single Arbitrator (and defined below) to determine the Market Rate. If Landlord and Tenant are unable to agree upon a single Arbitrator, then each shall, by written notice delivered to the other within 10 days after the meeting, select an Arbitrator. If either party fails to timely give notice of its selection for an Arbitrator, the other party’s submitted proposal shall determine the Base Rent for the Extension Term. The 2 Arbitrators so appointed shall, within 5 business days after their appointment, appoint a third Arbitrator. If the 2 Arbitrators so selected cannot agree on the selection of the third Arbitrator within the time above specified, then either party, on behalf of both parties, may request such appointment of such third Arbitrator by application to any state court of general jurisdiction in the jurisdiction in which the Premises are located, upon 10 days prior written notice to the other party of such intent.

The decision of the Arbitrator(s) shall be made within 30 days after the appointment of a single Arbitrator or the third Arbitrator, as applicable. The decision of the single Arbitrator shall be final and binding upon the parties. The average of the two closest Arbitrators in a three Arbitrator panel shall be final and binding upon the parties. Each party shall pay the fees and expenses of the Arbitrator appointed by or on behalf of such party and the fees and expenses of the third Arbitrator shall be borne equally by both parties. If the Market Rate is not determined by the first day of the Extension Term, then Tenant shall pay Landlord Base Rent in an amount equal to the Base Rent in effect immediately prior to the Extension Term and increased by the Rent Adjustment Amount until such determination is made. After the determination of the Market Rate, the parties shall make any necessary adjustments to such payments made by Tenant. Landlord and Tenant shall then execute an amendment recognizing the Market Rate for the Extension Term.

An “**Arbitrator**” shall be any person appointed by or on behalf of either party or appointed pursuant to the provisions hereof and: (i) shall be (A) a member of the American Institute of Real Estate Appraisers with not less than 10 years of experience in the appraisal of improved office and high tech or life sciences space in the greater Boston metropolitan area, or (B) a licensed commercial real estate broker with not less than 15 years experience representing landlords and/or tenants in the leasing of improved office and high tech or life sciences space in the greater Boston metropolitan area, (ii) devoting substantially all of their time to professional appraisal or brokerage work, as applicable, at the time of appointment and (iii) be in all respects impartial and disinterested.

(c) **Rights Personal.** The Extension Right is personal to Tenant (and successors pursuant to a Permitted Assignment) and not assignable without Landlord’s consent, which may be granted or withheld in Landlord’s sole discretion separate and apart from any consent by Landlord to an assignment of Tenant’s interest in the Lease.

(d) **Exceptions.** Notwithstanding anything set forth above to the contrary, the Extension Right shall not be in effect and Tenant may not exercise the Extension Right:

(i) during any period of time that Tenant is in Default under any provision of this Lease; or

(ii) if Tenant has been in Default under any provision of this Lease 3 or more times, whether or not the Defaults are cured, during the 12 month period immediately prior to the date that Tenant intends to exercise the Extension Right, whether or not the Defaults are cured.

(iii) if Tenant (including any successor pursuant to one or more Permitted Assignment(s)) is not in occupancy of at least 75% of the entire Premises demised hereunder both at the time of the exercise of the Extension Right and at the time of the commencement date of the Extension Term.

(e) **No Extensions.** The period of time within which the Extension Right may be exercised shall not be extended or enlarged by reason of Tenant’s inability to exercise the Extension Right.

(f) **Termination.** The Extension Right shall terminate and be of no further force or effect even after Tenant’s due and timely exercise of the Extension Right, if, after such exercise, but prior to the commencement date of the Extension Term, (i) Tenant fails to timely cure any default by Tenant under this Lease; or (ii) Tenant has Defaulted 3 or more times during the period from the date of the exercise of the Extension Right to the date of the commencement of the Extension Term, whether or not such Defaults are cured.

36. **Right to Expand.**

(a) **Expansion to Laboratory Space on the Fourth Floor of Building.** Subject to rights granted prior to the date hereof to Third Rock Ventures, LLC and to Eleven Biotherapeutics pursuant to separate written agreements, each time during the Base Term that Landlord intends to accept a written proposal (the “**Pending Deal**”) to lease the Available Space (as hereinafter defined) to a third party, Landlord shall deliver to Tenant written notice (the “**Pending Deal Notice**”) of the existence of such Pending Deal. For purposes of this Section 36(a), “**Available Space**” shall mean those certain portions of the fourth floor of the Project shown on **Exhibit K**. Tenant shall be entitled to exercise its right under this Section 36(a) only with respect to the entire Available Space described in such Pending Deal Notice. Within 10 days after Tenant’s receipt of the Pending Deal Notice, Tenant shall deliver to Landlord

written notice (the “**Space Acceptance Notice**”) if Tenant elects to lease the Available Space. Tenant’s right to receive the Pending Deal Notice and election to lease or not lease the Available Space pursuant to this Section 36(a) is hereinafter referred to as the “**Right of First Refusal.**” If Tenant elects to lease the Available Space described in the Pending Deal Notice by delivering the Space Acceptance Notice within the required 10 day period, Tenant shall be deemed to agree to lease the Available Space on the same general terms and conditions as this Lease except that the terms of this Lease shall be modified to reflect the terms of the Pending Deal. The term of the Lease with respect to the Available Space shall be the term of the Pending Deal, which Tenant acknowledges and agrees may not be co-terminous with the Term of this Lease with respect to the Premises. If Tenant fails to deliver a Space Acceptance Notice to Landlord within the required 10 day period, Tenant shall be deemed to have waived its rights under this Section 36(a) with respect to the Available Space identified in the Pending Deal Notice and the provisions of this Section 36(a) shall no longer apply to the Available Space identified in the Pending Deal Notice.

(b) **Amended Lease.** If: (i) Tenant fails to timely deliver a Space Acceptance Notice, or (ii) after the expiration of a period of 10 days after Landlord’s delivery to Tenant of a lease amendment or lease agreement for Tenant’s lease of the Available Space, no lease amendment or lease agreement for the Available Space acceptable to both parties each in their sole and absolute discretion, has been executed, Tenant shall be deemed to have waived its right to lease such Available Space.

(c) **Exceptions.** Notwithstanding the above, the Right of First Refusal shall, at Landlord’s option, not be in effect and may not be exercised by Tenant:

(i) during any period of time that Tenant is in Default under any provision of the Lease; or

(ii) if Tenant has been in Default under any provision of the Lease 3 or more times, whether or not the Defaults are cured, during the 12 month period prior to the date on which Tenant seeks to exercise the Right of First Refusal.

(d) **Termination.** The Right of First Refusal shall, at Landlord’s option, terminate and be of no further force or effect even after Tenant’s due and timely exercise of the Right of First Refusal, if, after such exercise, but prior to the commencement date of the lease of such Available Space, (i) Tenant fails to timely cure any default by Tenant under the Lease; or (ii) Tenant has Defaulted 3 or more times during the period from the date of the exercise of the Right of First Refusal to the date of the commencement of the lease of the Available Space, whether or not such Defaults are cured.

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(e) **Rights Personal.** The Right of First Refusal is personal to Tenant (and successors pursuant to a Permitted Assignment) and is not assignable without Landlord’s consent, which may be granted or withheld in Landlord’s sole discretion separate and apart from any consent by Landlord to an assignment of Tenant’s interest in the Lease.

(f) **No Extensions.** The period of time within which the Right of First Refusal may be exercised shall not be extended or enlarged by reason of Tenant’s inability to exercise the Right of First Refusal.

37. **Miscellaneous.**

(a) **Notices.** Except as otherwise provided herein, all notices or other communications between the parties shall be in writing and shall be deemed duly given upon delivery or refusal to accept delivery by the addressee thereof if delivered in person, confirmed receipt by facsimile, or upon delivery if delivered by reputable overnight guaranty courier or certified mail return receipt requested, addressed and sent to the parties at their addresses set forth above. Landlord and Tenant may from time to time by written notice to the other designate another address for receipt of future notices.

(b) **Recordation.** Neither this Lease nor a memorandum of lease shall be filed by or on behalf of Tenant in any public record. Landlord may prepare and file, and upon request by Landlord Tenant will execute, a memorandum of lease.

(c) **Interpretation.** The normal rule of construction to the effect that any ambiguities are to be resolved against the drafting party shall not be employed in the interpretation of this Lease or any exhibits or amendments hereto. The captions inserted in this Lease are for convenience only and in no way define, limit or otherwise describe the scope or intent of this Lease, or any provision hereof, or in any way affect the interpretation of this Lease.

(d) **Not Binding Until Executed.** The submission by Landlord to Tenant of this Lease shall have no binding force or effect, shall not constitute an option for the leasing of the Premises, nor confer any right or impose any obligations upon either party until execution of this Lease by both parties.

(e) **Limitations on Interest.** It is expressly the intent of Landlord and Tenant at all times to comply with applicable law governing the maximum rate or amount of any interest payable on or in connection with this Lease. If applicable law is ever judicially interpreted so as to render usurious any interest called for under this Lease, or contracted for, charged, taken, reserved, or received with respect to this Lease, then it is Landlord’s and Tenant’s express intent that all excess amounts theretofore collected by Landlord be credited on the applicable obligation (or, if the obligation has been or would thereby be paid in full, refunded to Tenant), and the provisions of this Lease immediately shall be deemed reformed and the amounts thereafter collectible hereunder reduced, without the necessity of the execution of any new document, so as to comply with the applicable law, but so as to permit the recovery of the fullest amount otherwise called for hereunder.

(f) **Choice of Law.** Construction and interpretation of this Lease shall be governed by the internal laws of the state in which the Premises are located, excluding any principles of conflicts of laws.

(g) **Time.** Time is of the essence as to the performance of Tenant’s obligations under this Lease.

(h) **Force Majeure.** Except for the payment of Rent, neither Landlord nor Tenant shall be held responsible or liable for delays in the performance of its obligations hereunder when caused by, related to, or arising out of acts of God, strikes, lockouts, or other labor disputes, embargoes, quarantines, weather, national, regional, or local disasters, calamities, or catastrophes, inability to obtain labor or materials (or reasonable substitutes therefor) at reasonable costs or failure of, or inability to obtain, utilities necessary for performance, governmental restrictions, orders, limitations, regulations, or controls, national emergencies, delay in issuance or revocation of permits, enemy or hostile governmental

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action, terrorism, insurrection, riots, civil disturbance or commotion, fire or other casualty, and other causes or events beyond the reasonable control of the parties (individually or collectively, "**Force Majeure**"), it being understood that Force Majeure shall not include financial difficulties of Landlord or Tenant, if any.

(i) **Financial Information.** Tenant shall furnish Landlord with true and complete copies of (i) Tenant's most recent unaudited annual financial statements within 90 days and audited annual financial statements within 180 days of the end of each of Tenant's fiscal years during the Term, (ii) Tenant's most recent unaudited quarterly financial statements within 45 days of the end of each of Tenant's first three fiscal quarters of each of Tenant's fiscal years during the Term, (iii) at Landlord's request from time to time but not more than once in any 12 month period, updated business plans, including cash flow projections and/or pro forma balance sheets and income statements, all of which shall be treated by Landlord as confidential information belonging to Tenant, (iv) corporate brochures and/or profiles prepared by Tenant for prospective investors, and (v) any other financial information or summaries that Tenant typically provides to its lenders or shareholders. So long as Tenant is a "public company" and its financial information is publicly available, then the foregoing delivery requirements of this Section 37(i) shall not apply.

(j) **OFAC.** Tenant, and all beneficial owners of Tenant, are currently (a) in compliance with, and shall at all times during the Term of this Lease remain in compliance with, the regulations of the Office of Foreign Assets Control ("**OFAC**") of the U.S. Department of Treasury and any statute, executive order, or regulation relating thereto (collectively, the "**OFAC Rules**"), (b) not listed on, and shall not during the Term of this Lease be listed on, the Specially Designated Nationals and Blocked Persons List maintained by OFAC and/or on any other similar list maintained by OFAC or other governmental authority pursuant to any authorizing statute, executive order, or regulation, and (c) not a person or entity with whom a U.S. person is prohibited from conducting business under the OFAC Rules.

(k) **Incorporation by Reference.** All exhibits and addenda attached hereto are hereby incorporated into this Lease and made a part hereof. If there is any conflict between such exhibits or addenda and the terms of this Lease, such exhibits or addenda shall control, except in the case of conflict between the Rules and Regulations in **Exhibit I**. In the event of any conflict between the Rules and Regulations in **Exhibit I** and the Lease, the Lease shall control.

(l) **No Accord and Satisfaction.** No payment by Tenant or receipt by Landlord of a lesser amount than the monthly installment of Base Rent or any Additional Rent will be other than on account of the earliest stipulated Base Rent and Additional Rent, nor will any endorsement or statement on any check or letter accompanying a check for payment of any Base Rent or Additional Rent be an accord and satisfaction. Landlord may accept such check or payment without prejudice to Landlord's right to recover the balance of such Rent or to pursue any other remedy provided in this Lease.

(m) **Hazardous Activities.** Notwithstanding any other provision of this Lease, Landlord, for itself and its employees, agents and contractors, reserves the right to refuse to perform any repairs or services in any portion of the Premises which, pursuant to Tenant's routine safety guidelines, practices or custom or prudent industry practices, require any form of protective clothing or equipment other than safety glasses. In any such case, Tenant shall contract with parties who are acceptable to Landlord, in Landlord's reasonable discretion, for all such repairs and services, and Landlord shall, to the extent required, equitably adjust Tenant's Share of Operating Expenses in respect of such repairs or services to reflect that Landlord is not providing such repairs or services to Tenant.

[Signatures on next page]

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

TENANT:

VERASTEM, INC.
a Delaware corporation

By: /s/ Robert Forrester
Its: COO

LANDLORD:

ARE-MA REGION NO. 38, LLC, a Delaware limited liability corporation

By: Alexandria Real Estate Equities, L.P.
a Delaware limited partnership, member

By: ARE-QRS Corp., a Maryland corporation, general partner

By: /s/ Eric S. Johnson
Its: Vice President
Real Estate Legal Affairs

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EXHIBIT A TO LEASE

DESCRIPTION OR PLAN OF PREMISES

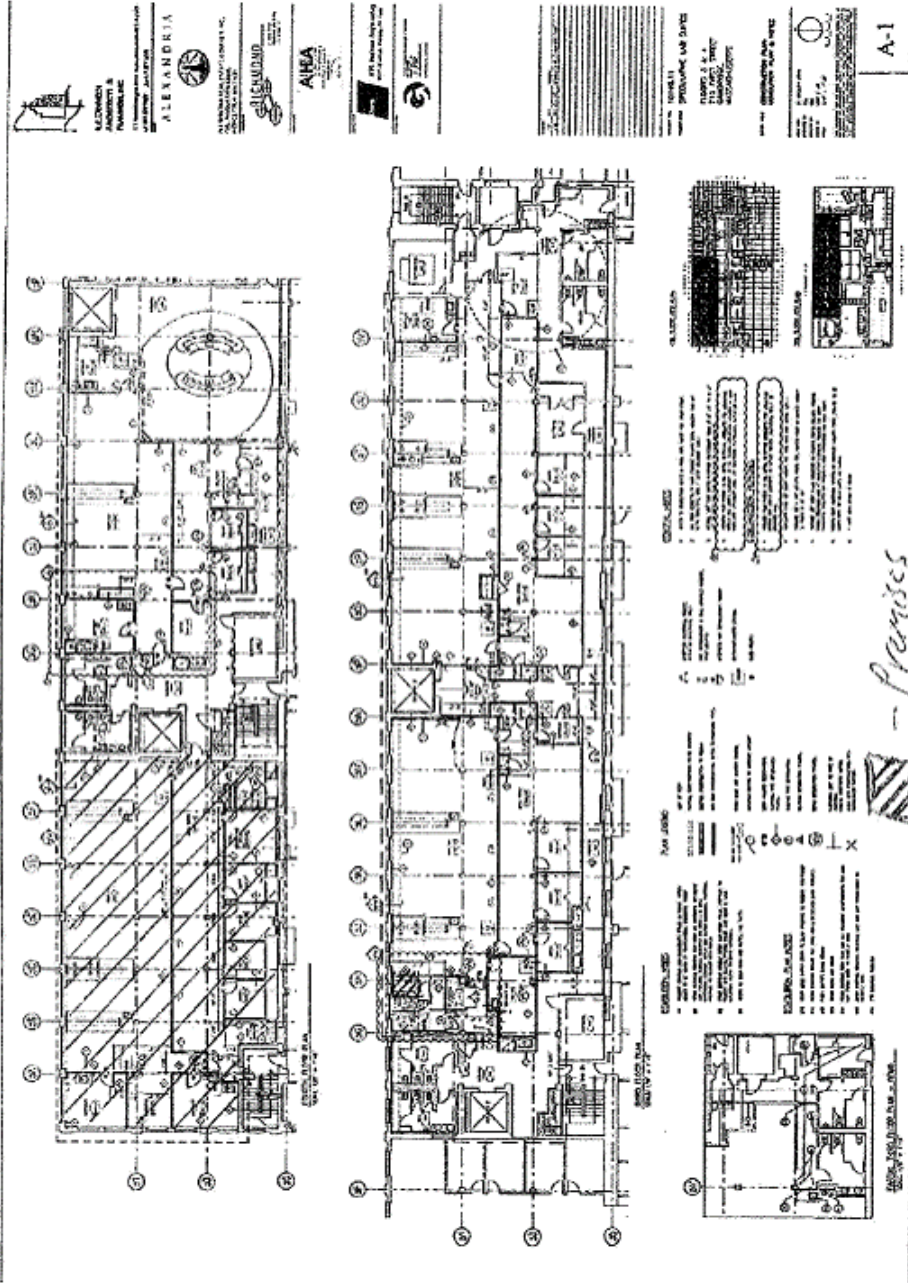


EXHIBIT B TO LEASE

DESCRIPTION OR PLAN OF SHARED SCIENCE FACILITY

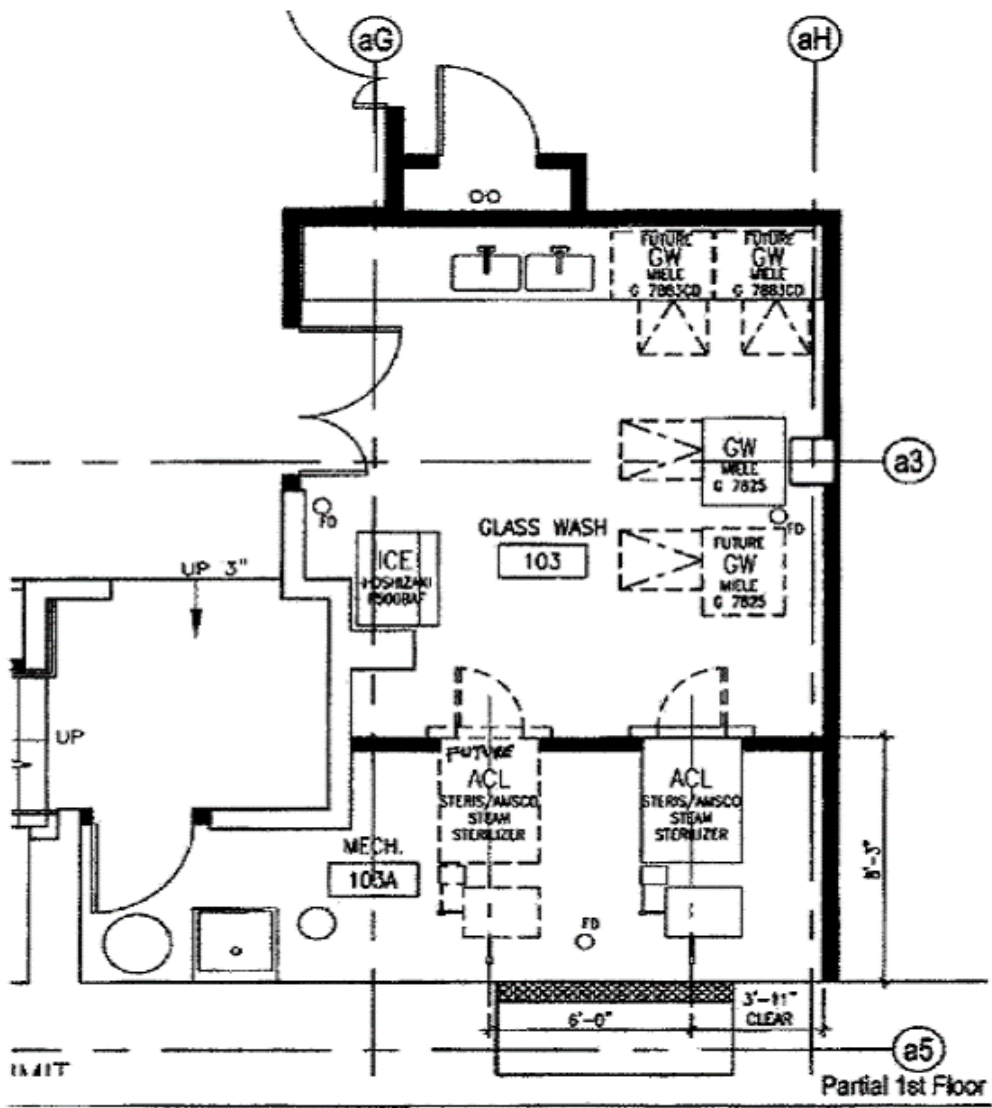
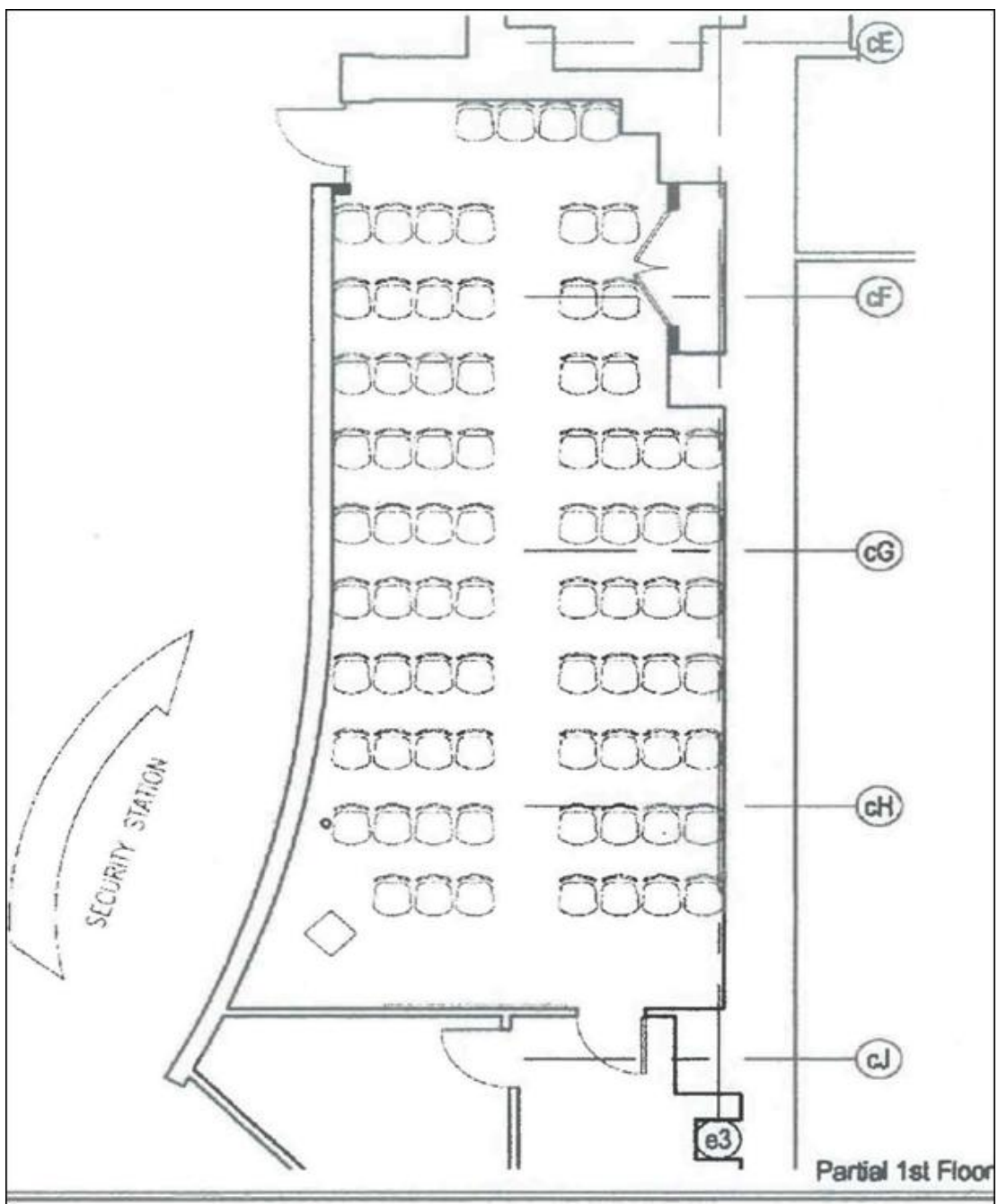


EXHIBIT C TO LEASE

DESCRIPTION OR PLAN OF SHARED CONFERENCE FACILITY



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EXHIBIT D TO LEASE

DESCRIPTION OF PROJECT

A certain parcel of land with the buildings thereon, in Cambridge, Middlesex County, Massachusetts, known as and numbered 215 First Street, and bounded and described as follows:

Beginning at the northwest corner of Athenaeum Street and First Street, said point being the southeasterly corner of the parcel;

Thence running N 80 degrees 12'27" W, a distance of 399.30 feet along the northerly line of said Athenaeum Street;

Thence turning and running N 09 degrees 43'10" E, a distance of 200.00 feet along the easterly line of Second Street;

Thence turning and running S 80 degrees 12'27" E, a distance of 399.41 feet along the southerly line of Munroe Street;

Thence turning and running S 09 degrees 45'06" W, a distance of 200.00 feet along the westerly line of First Street to the point of beginning.

The above described parcel contains 79,871 square feet, more or less.

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EXHIBIT E TO LEASE

LICENSE AGREEMENT

THIS LICENSE AGREEMENT (this “**Agreement**”), dated as of _____, 2011, is made and entered into by and between **ARE-MA REGION NO. 38, LLC**, a Delaware limited liability company (“**Licensor**”), and **VERASTEM, INC.**, a Delaware corporation (“**Licensee**”), with reference to the following Recitals:

RECITALS

- A.** Licensor is the owner of that certain property commonly known as 215 First Street, Cambridge, Massachusetts (the “**Property**”).
- B.** Concurrently herewith, Licensee and Licensor are entering into that certain Lease Agreement (the “**Lease**”) for certain space located at the Property and more particularly described therein (the “**Premises**”). All initially capitalized terms used herein but not otherwise defined shall have the respective meanings ascribed thereto in the Lease.
- C.** Licensee desires to have, and Licensor desires to grant to Licensee, certain rights to access and use a certain area of the Property described as the “**Shared Science Facility**” on **Exhibit 1** attached hereto and a certain area of the Property described as the “**Shared Conference Facility**” on **Exhibit 2** attached hereto, all in accordance with the terms and provisions set forth below.

AGREEMENT

For and in consideration of the covenants and premises herein contained and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereby agree as follows:

1. **License; Scheduling and Fees for Shared Conference Facility.**

(a) **License.** Licensor hereby grants Licensee, and Licensee hereby accepts, a nonexclusive license to use the Shared Science Facility and the Shared Conference Facility subject to the terms and provisions of this Agreement.

(b) **Scheduling and Fees for Shared Conference Facility.** Use by Licensee of the Shared Conference Facility shall be in common with others entitled to use the Shared Conference Facility in accordance with scheduling procedures reasonably determined by Licensor. Licensor shall use commercially reasonable efforts to schedule users on a first-come, first-served basis, but Licensor reserves the right to exercise its discretion in the event of conflicting scheduling requests among users. The first two occasions in a calendar month that Licensee uses the Shared Conference Facility shall be at no charge for such use, and thereafter Licensee shall pay the hourly charges established by Licensor from time to time for use of the Shared Conference Facility. The current hourly charge for the use of the Shared Conference Facility as of the date of this Lease is \$200 per hour and is subject to change as determined by Licensor from time to time. Payment of such hourly charges shall be made within 20 days of invoice therefor, and Licensor reserves the right to require an advance deposit from time to time.

2. **Use.** Licensee shall exercise its limited rights hereunder in compliance with all laws, orders, judgments, ordinances, regulations, codes, directives, permits, licenses, covenants and restrictions now or hereafter applicable to the Property, Shared Science Facility or Shared Conference Facility and the use and occupancy thereof, including the rules and regulations attached as **Exhibit 3** hereto, as the same may be revised by Licensor from time to time.

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3. **Term.** The term of this Agreement shall commence on the Commencement Date set forth in the Lease (the “**Commencement Date**”) and continue until the earlier to occur of (a) the last day on which Licensee is entitled to occupy the Premises pursuant to the terms of the Lease, (b) the date this Agreement is sooner terminated pursuant to its terms, and (c) the date the Lease is sooner terminated pursuant to its terms. The period between the Commencement Date and the date of termination of this Agreement shall be the “**Term.**”

4. **Relocation and Modification of Shared Science Facility or Shared Conference Facility.** Licensor shall have the right at any time to reconfigure, relocate or modify the Shared Science Facility and/or Shared Conference Facility from time to time and to revise or expand any of the services (if any) provided therein; provided, however, that such reconfiguration, relocation or modification of the respective facility or any revision or expansion of services shall not materially adversely affect Tenant’s use of such facility or service as permitted pursuant to this Agreement.

5. **Interference.** Licensee shall use the Shared Science Facility and Shared Conference Facility in a manner that will not interfere with the rights of any tenants, other licensees or Licensor’s service providers. Licensor assumes no responsibility for enforcing Licensee’s rights or for protecting the Shared Science Facility or Shared Conference Facility from interference or use from any person, including, without limitation, tenants or other licensees of the Property.

6. **Default by Licensee.**

(a) It is mutually agreed that Licensee shall be in default hereunder (“**Default**”),

(i) if Licensee fails to comply with any of the terms or provisions of this Agreement, and fails to cure such default within 30 days after the date of delivery of written notice of default from Licensor, provided that if the nature of such default is such that it cannot be cured by the payment of money and reasonably requires more than 30 days to cure, then Licensee shall not be deemed to be in Default under this License if Licensee commences such cure within 30 days of the aforesaid notice from Licensor and thereafter diligently prosecutes such cure to completion within 90 days of the aforesaid notice from Licensor; or

(ii) with respect to the Shared Conference Facility, if Licensee fails to pay any fees or charges for use of the Shared Conference Facility or other amounts required hereunder when due pursuant to this Agreement; provided, however, that Licensor will give Licensee notice and an opportunity to cure any failure to pay such fees or charges within 3 business days of any such notice not more than once in any 12 month period and Licensee agrees that such notice shall be in lieu of and not in addition to, or shall be deemed to be, any notice required by law or

(iii) during the occurrence and continuation of any Default (as defined in the Lease) under the Lease.

(b) In the event of any Default by Licensee hereunder, Licensor shall be entitled to all rights and remedies provided for Landlord under the Lease, and all other rights and remedies provided at law or in equity, including without limitation, termination of this Agreement and the license granted hereunder.

7. **Indemnification and Limitation of Liability.**

(a) Licensor's sole obligation for providing standby generators or any other standby power equipment, other equipment, systems, furnishings or personal property to the Shared Science Facility or Shared Conference Facility, whether or not affixed to the Building (collectively, "**Equipment**") shall be (i) to provide such Equipment as is determined by Licensor in its sole and absolute discretion, and (ii) to contract with a third party (determined by Licensor to be qualified) to maintain the Equipment that is deemed by Licensor (in its reasonable professional discretion) to need periodic maintenance per the manufacturer's standard maintenance guidelines. Licensor shall have no obligation to provide Licensee with operational Equipment, back-up Equipment or back-up utilities or to supervise, oversee or confirm

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that the third party maintaining the Equipment is maintaining the Equipment as per the manufacturer's standard guidelines or otherwise. During any period of replacement, repair or maintenance of the Equipment when such Equipment is not operational, including any delays thereto due to the inability to obtain parts or replacements, Licensor shall have no obligation to provide Licensee with alternative or back-up Equipment or alternative sources of utilities. Licensee expressly acknowledges and agrees that Licensor does not guaranty that the Equipment will be operational at all times, will function or perform adequately, or that emergency power will be available to the Premises when needed, and Licensor shall not be liable for any damages resulting from the failure of such Equipment. Licensee hereby releases Licensor from and against any and all claims arising directly or indirectly out of or relating to the Equipment, or the existence, use of failure thereof, unless caused solely by the willful misconduct or gross negligence of Licensor. The terms and provisions of this Section 7(a) shall survive the expiration or earlier termination of this Agreement.

(b) NOTWITHSTANDING ANYTHING SET FORTH HEREIN OR IN ANY OTHER AGREEMENT BETWEEN LICENSOR AND LICENSEE TO THE CONTRARY: (i) LICENSOR SHALL NOT BE LIABLE TO LICENSEE OR ANY OTHER PERSON FOR (AND LICENSEE AND EACH SUCH OTHER PERSON ASSUME ALL RISK OF) LOSS, DAMAGE OR INJURY, WHETHER ACTUAL OR CONSEQUENTIAL TO PERSONAL PROPERTY OF EVERY KIND AND DESCRIPTION, INCLUDING, WITHOUT LIMITATION, TRADE FIXTURES, EQUIPMENT, INVENTORY, SCIENTIFIC RESEARCH, SCIENTIFIC EXPERIMENTS, LABORATORY ANIMALS, PRODUCT, SPECIMENS, SAMPLES, AND/OR SCIENTIFIC, BUSINESS, ACCOUNTING AND OTHER RECORDS OF EVERY KIND AND DESCRIPTION AND ANY AND ALL INCOME DERIVED OR DERIVABLE THEREFROM; and (ii) THERE SHALL BE NO PERSONAL RECOURSE TO LICENSOR FOR ANY ACT OR OCCURRENCE IN, ON OR ABOUT THE PREMISES, SHARED SCIENCE FACILITY, SHARED CONFERENCE FACILITY OR PROJECT OR ARISING IN ANY WAY UNDER THIS LICENSE AGREEMENT OR ANY OTHER AGREEMENT BETWEEN LICENSOR AND LICENSEE WITH RESPECT TO THE SUBJECT MATTER HEREOF AND ANY LIABILITY OF LICENSOR HEREUNDER SHALL BE STRICTLY LIMITED SOLELY TO LICENSOR'S INTEREST IN THE PROJECT OR ANY PROCEEDS FROM SALE OR CONDEMNATION THEREOF AND ANY INSURANCE PROCEEDS PAYABLE IN RESPECT OF LICENSOR'S INTEREST IN THE PROJECT OR IN CONNECTION WITH ANY SUCH LOSS; AND (iii) IN NO EVENT SHALL ANY PERSONAL LIABILITY BE ASSERTED AGAINST LICENSOR OR ANY OF ITS OFFICERS, DIRECTORS, EMPLOYEES, AGENTS OR CONTRACTORS IN CONNECTION WITH THIS LICENSE AGREEMENT NOR SHALL ANY RECOURSE BE HAD TO ANY OTHER PROPERTY OR ASSETS OF LICENSOR OR ANY OF LICENSOR'S OFFICERS, DIRECTORS, EMPLOYEES, AGENTS OR CONTRACTORS.

(c) Licensee acknowledges and agrees that there are no warranties of any kind, whether express or implied, made by Licensor or otherwise with respect to the Shared Science Facility, Shared Conference Facility or any services (if any) provided in either the Shared Science Facility or Shared Conference Facility, and licensee disclaims any and all such warranties.

(d) Licensor shall not be in default hereunder unless Licensor fails to perform any of its obligations hereunder within thirty (30) days after written notice from Licensee specifying such failure, with such extension of time by reason of Force Majeure as may be reasonably necessary; provided, however, that if the nature of Licensor's obligation arises from an emergency condition and Licensee provides notice to Licensor (which may be telephonic if followed by written notice on the same day describing the emergency condition in reasonable detail, including without limitation the emergency nature of the condition and specifying in all capital letters and boldface type that the condition is an emergency and response is required by Licensor pursuant to this Agreement), then Licensor shall respond within a reasonable period after receipt of such notice of the emergency condition.. Licensee's sole remedy for any breach or default by Licensor hereunder shall be to terminate this Agreement and Licensee hereby, to the maximum extent possible, knowingly waives the provisions of any law or regulation, now or hereafter in effect which provides additional or other remedies to Licensee as a result of any breach by Licensor hereunder or under any such law or regulation.

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8. **Miscellaneous.**

(a) This Agreement, together with the Lease, constitutes the entire agreement and understanding between the parties, and supersedes all offers, negotiations and other agreements concerning the subject matter contained herein. Any amendments to this Agreement must be in writing and executed by both parties.

(b) If any clause or provision of this Agreement is illegal, invalid or unenforceable under present or future laws, then and in that event, it is the intention of the parties hereto that the remainder of this Agreement shall not be affected thereby.

(c) This Agreement shall be binding on and inure to the benefit of the successors and permitted assigns of the respective parties.

(d) All notices or other communications between the parties shall be in writing and shall be deemed duly given upon delivery or refusal to accept delivery by the addressee thereof if delivered in person, or upon actual receipt if delivered by reputable overnight guaranty courier, addressed and sent to the parties at their addresses set forth in the Lease (as the same may be revised from time to time in accordance with the terms of the Lease).

(e) The license granted hereunder is appurtenant to Licensee's leasehold interest in the Premises and may not be assigned or otherwise pledged or transferred, directly or indirectly, except in connection with any assignment of the Lease or sublease of the Premises to which Landlord consents or is otherwise permitted under the Lease. In the event of a permitted assignment of the Lease, this Agreement shall automatically be assigned thereby, and thereupon the assigning Licensee shall have no further rights to use or access the Shared Science Facility or Shared Conference Facility. No assignment or other transfer of the Lease or of this License shall release Licensee of its obligations hereunder.

(f) This Agreement shall be construed, interpreted, governed and enforced pursuant to the laws of the state in which the Property is located.

(g) This Agreement may be executed in multiple counterparts but all counterparts taken together shall constitute a single document.

(h) Time is of the essence of each and every provision of this Agreement.

(i) The parties to this Agreement hereby acknowledge that each such party and its counsel have participated in the negotiation and preparation of this Agreement, and this Agreement shall be construed and interpreted without regard to any presumption or other rule requiring construction against the party causing the Agreement to be drafted.

(j) Licensee acknowledges that its use of the Shared Science Facility and Shared Conference Facility are non-exclusive and will be subject to the use of other tenants and licensees of the Property. Licensee acknowledges that it will be important for all such users to cooperate with each other to maintain the confidentiality of each party's documents and operations as well as information a party may hold under confidential arrangements with third parties. Licensee shall maintain and treat as confidential and secret all information and materials which may intentionally or unintentionally be disclosed to it in connection with such shared occupancy (the "**Confidential Information**"). Licensee shall not disclose Confidential Information to any third party and will take appropriate action by instruction, agreement or otherwise with its employees, agents, affiliates, associates, representatives, contractors and invitees to ensure that security of the Confidential Information is maintained. Notwithstanding the foregoing, Licensee may disclose Confidential Information to the extent that (a) disclosure is compelled by judicial or administrative process or other requirements of law, or (b) Licensee can show that such Confidential Information (i) was publicly available prior to the date of this Agreement or thereafter became publicly available without violation of this Agreement by Licensee or its employees, agents, affiliates, associates, representatives, contractors or invitees, or (ii) became available to Licensee by means other than its use of or access to the Shared Science Facility or Shared Conference Facility. The provisions of this Section 8(j) shall survive the expiration or earlier termination of this Agreement.

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[Signatures On Next Page]

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IN WITNESS WHEREOF, Licensors and Licensee have caused this Agreement to be executed by their duly authorized representatives as of the date first above written.

LICENSEE:

VERASTEM, INC.
a Delaware corporation

By: _____
Its: _____

LICENSOR:

ARE-MA REGION NO. 38, LLC, a Delaware limited liability corporation

By: Alexandria Real Estate Equities, L.P.
a Delaware limited partnership, member

By: ARE-QRS Corp., a Maryland
corporation, general partner

By: _____
Its: _____

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EXHIBIT 1 TO LICENSE AGREEMENT

DESCRIPTION OR PLAN OF SHARED SCIENCE FACILITY

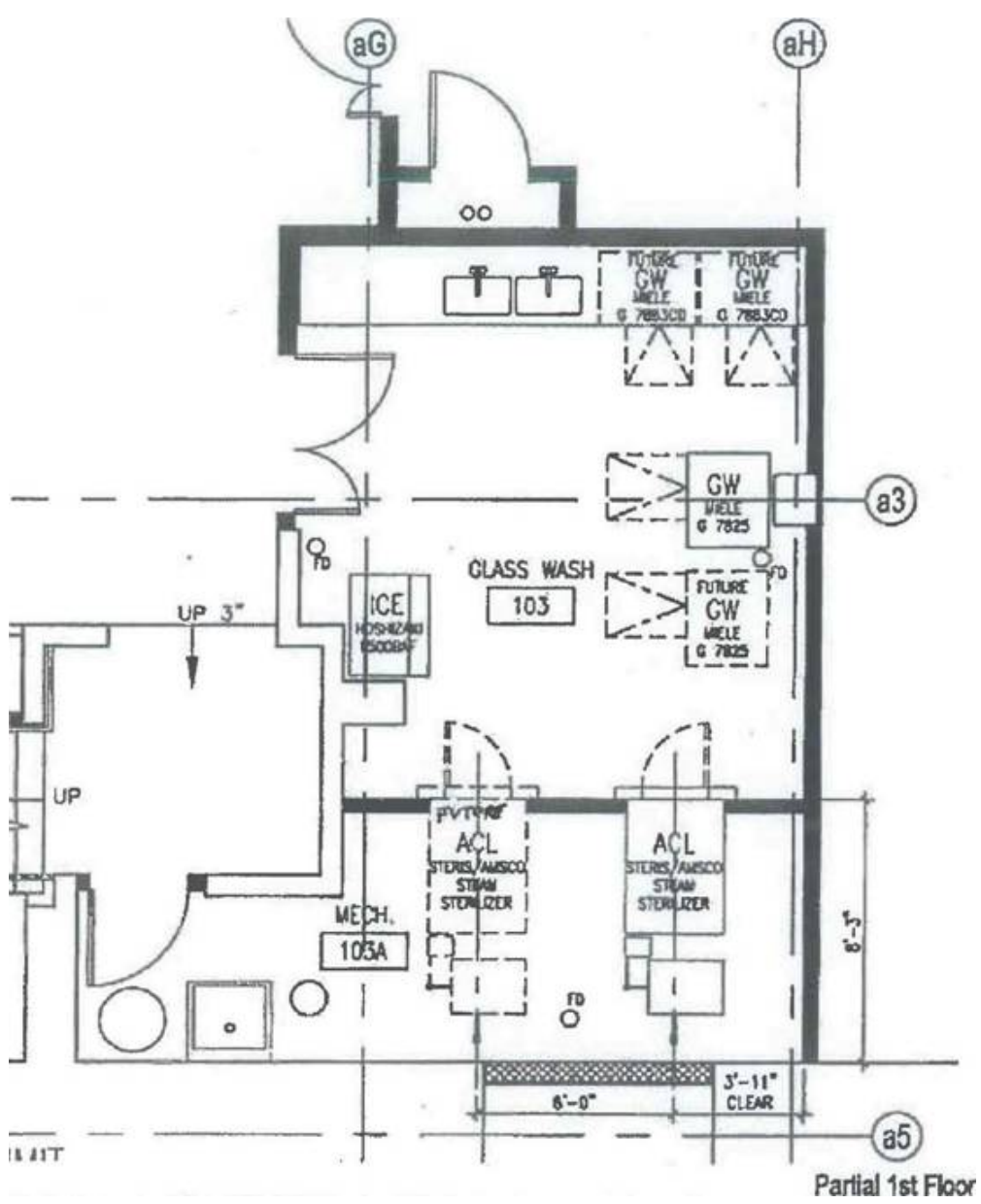


EXHIBIT 2 TO LICENSE AGREEMENT
DESCRIPTION OF PLAN OF SHARED CONFERENCE FACILITY

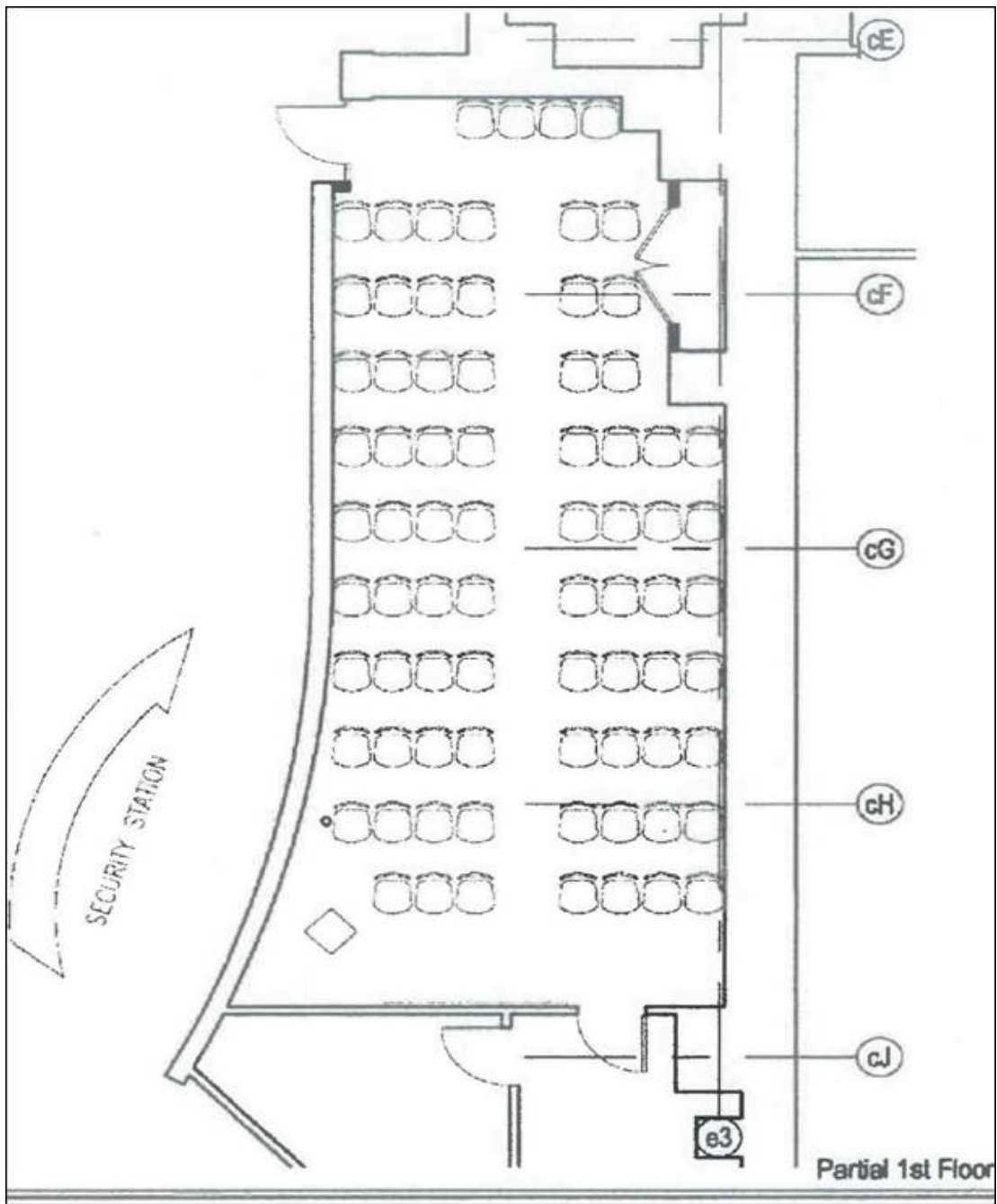


EXHIBIT 3 TO LICENSE AGREEMENT

RULES AND REGULATIONS

Rules and regulations (if any) will be established and implemented by Licensor during the Term.

EXHIBIT F TO LEASE

INTENTIONALLY OMITTED

EXHIBIT G TO LEASE

ACKNOWLEDGMENT OF COMMENCEMENT DATE

This **ACKNOWLEDGMENT OF COMMENCEMENT DATE** is made this 6th day of May, 2011, between **ARE-MA REGION NO. 38, LLC**, a Delaware limited liability company ("**Landlord**"), and **VERASTEM, INC.**, a Delaware corporation ("**Tenant**"), and is attached to and made a part of the

Lease dated May 2, 2011 (the "**Lease**"), by and between Landlord and Tenant. Any initially capitalized terms used but not defined herein shall have the meanings given them in the Lease.

Landlord and Tenant hereby acknowledge and agree, for all purposes of the lease, that the Commencement Date of the Base Term of the Lease is May 9, 2011 and the termination date of the Base Term of the Lease shall be midnight on October 31, 2014. In case of a conflict between this Acknowledgment of Commencement Date and the Lease, this Acknowledgment of Commencement Date shall control for all purposes.

IN WITNESS WHEREOF, Landlord and Tenant have executed this ACKNOWLEDGMENT OF COMMENCEMENT DATE to be effective on the date first above written.

TENANT:

VERASTEM, INC.
a Delaware corporation

By: /s/ Robert Forrester
Its: COO

LANDLORD:

ARE-MA REGION NO. 38, LLC, a Delaware limited liability corporation

By: Alexandria Real Estate Equities, L.P.
a Delaware limited partnership, member

By: ARE-QRS Corp., a Maryland
corporation, general partner

By: /s/ Eric S. Johnson
Its: Vice President
Real Estate Legal Affairs

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EXHIBIT H TO LEASE

TENANT'S PERSONAL PROPERTY

None.

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EXHIBIT I TO LEASE

Rules and Regulations

1. The sidewalk, entries, and driveways of the Project shall not be obstructed by Tenant, or any Tenant Party, or used by them for any purpose other than ingress and egress to and from the Premises.
2. Tenant shall not place any objects, including antennas, outdoor furniture, etc., in the parking areas, landscaped areas or other areas outside of its Premises, or on the roof of the Project.
3. Except for animals assisting the disabled, no animals shall be allowed in the offices, halls, or corridors in the Project.
4. Tenant shall not disturb the occupants of the Project or adjoining buildings by the use of any radio or musical instrument or by the making of loud or improper noises.
5. If Tenant desires telegraphic, telephonic or other electric connections in the Premises, Landlord or its agent will direct the electrician as to where and how the wires may be introduced; and, without such direction, no boring or cutting of wires will be permitted. Any such installation or connection shall be made at Tenant's expense.
6. Tenant shall not install or operate any steam or gas engine or boiler, or other mechanical apparatus in the Premises, except as specifically approved in the lease. The use of oil, gas or inflammable liquids for heating, lighting or any other purpose is expressly prohibited. Explosives or other articles deemed extra hazardous shall not be brought into the Project.
7. Parking any type of recreational vehicles is specifically prohibited on or about the Project. Except for the overnight parking of operative vehicles, no vehicle of any type shall be stored in the parking areas at any time. In the event that a vehicle is disabled, it shall be removed within 48 hours. There shall be no "For Sale" or other advertising signs on or about any parked vehicle. All vehicles shall be parked in the designated parking areas in

conformity with all signs and other markings. All parking will be open parking, and no reserved parking, numbering or lettering of individual spaces will be permitted except as specified by Landlord.

8. Tenant shall maintain the Premises free from rodents, insects and other pests.

9. Landlord reserves the right to exclude or expel from the Project any person who, in the judgment of Landlord, is intoxicated or under the influence of liquor or drugs or who shall in any manner do any act in violation of the Rules and Regulations of the Project.

10. Tenant shall not cause any unnecessary labor by reason of Tenant's carelessness or indifference in the preservation of good order and cleanliness. Landlord shall not be responsible to Tenant for any loss of property on the Premises, however occurring, or for any damage done to the effects of Tenant by the janitors or any other employee or person.

11. Tenant shall give landlord prompt notice of any defects in the water, lawn sprinkler, sewage, gas pipes, electrical lights and fixtures, heating apparatus, or any other service equipment affecting the Premises.

12. Tenant shall not permit storage outside the Premises, including without limitation, outside storage of trucks and other vehicles, or dumping of waste or refuse or permit any harmful materials to be placed in any drainage system or sanitary system in or about the Premises.

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13. All moveable trash receptacles provided by the trash disposal firm for the Premises must be kept in the trash enclosure areas, if any, provided for that purpose.

14. No auction, public or private, will be permitted on the Premises or the Project.

15. No awnings shall be placed over the windows in the Premises except with the prior written consent of Landlord.

16. The Premises shall not be used for lodging, sleeping or cooking (except that Tenant may use microwave ovens, toasters and coffee makers in the Premises for the benefit of Tenant's employees and contractors in an area designated for such items, but only if the use thereof is at all times supervised by the individual using the same) or for any immoral or illegal purposes or for any purpose other than that specified in the Lease. No gaming devices shall be operated in the Premises.

17. Tenant shall ascertain from landlord the maximum amount of electrical current which can safely be used in the Premises, taking into account the capacity of the electrical wiring in the Project and the Premises and the needs of other tenants, and shall not use more than such safe capacity. Landlord's consent to the installation of electric equipment shall not relieve Tenant from the obligation not to use more electricity than such safe capacity.

18. Tenant assumes full responsibility for protecting the Premises from theft, robbery and pilferage.

19. Tenant shall not install or operate on the Premises any machinery or mechanical devices of a nature not directly related to Tenant's ordinary use of the Premises and shall keep all such machinery free of vibration, noise and air waves which may be transmitted beyond the Premises.

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EXHIBIT J TO LEASE

NOTIFICATION OF THE PRESENCE OF ASBESTOS CONTAINING MATERIALS

This notification provides certain information about asbestos within or about the Premises at 215 First Street, Cambridge, MA ("**Building**").

Historically, asbestos was commonly used in building products used in the construction of buildings across the country. Asbestos-containing building products were used because they are fire-resistant and provide good noise and temperature insulation. Because of their prevalence, asbestos-containing materials, or ACMs, are still sometimes found in buildings today.

No ACMs were identified in an asbestos survey of the building conducted in 2007. However, to avoid damage, several materials were not sampled and are presumed asbestos-containing materials or PACMs as listed in the following table:

<u>Material Description</u>	<u>Material Location</u>
Ceramic tile adhesive and grout	Throughout restrooms; ground floor hallways; first floor lobby and hallways
Built-up roofing beneath rubber	Throughout roof
Flashing cement	Roof
Flex connectors on HVAC units	Roof

The PACMs described above were observed to be in good condition and may be managed in place. Because ACMs may be present within or about the Building, we have hired an independent environmental consulting firm to prepare an operations and maintenance program ("**O&M Program**"). The O&M Program is designed to minimize the potential of any harmful asbestos exposure to any person within or about the Building. The O&M Program includes a description of work methods to be taken in order to maintain any ACMs or PACMs within or about the Building in good condition and to prevent any significant disturbance of such ACMs or PACMs. Appropriate personnel receive regular periodic training on how to properly administer the O&M Program.

The O&M Program describes the risks associated with asbestos exposure and how to prevent such exposure through appropriate work practices. ACMs and PACMs generally are not thought to be a threat to human health unless asbestos fibers are released into the air and inhaled. This does not typically occur unless (1) the ACMs are in a deteriorating condition, or (2) the ACMs have been significantly disturbed (such as through abrasive cleaning, or maintenance or renovation activities). If inhaled, asbestos fibers can accumulate in the lungs and, as exposure increases, the risk of disease (such as asbestosis or cancer)

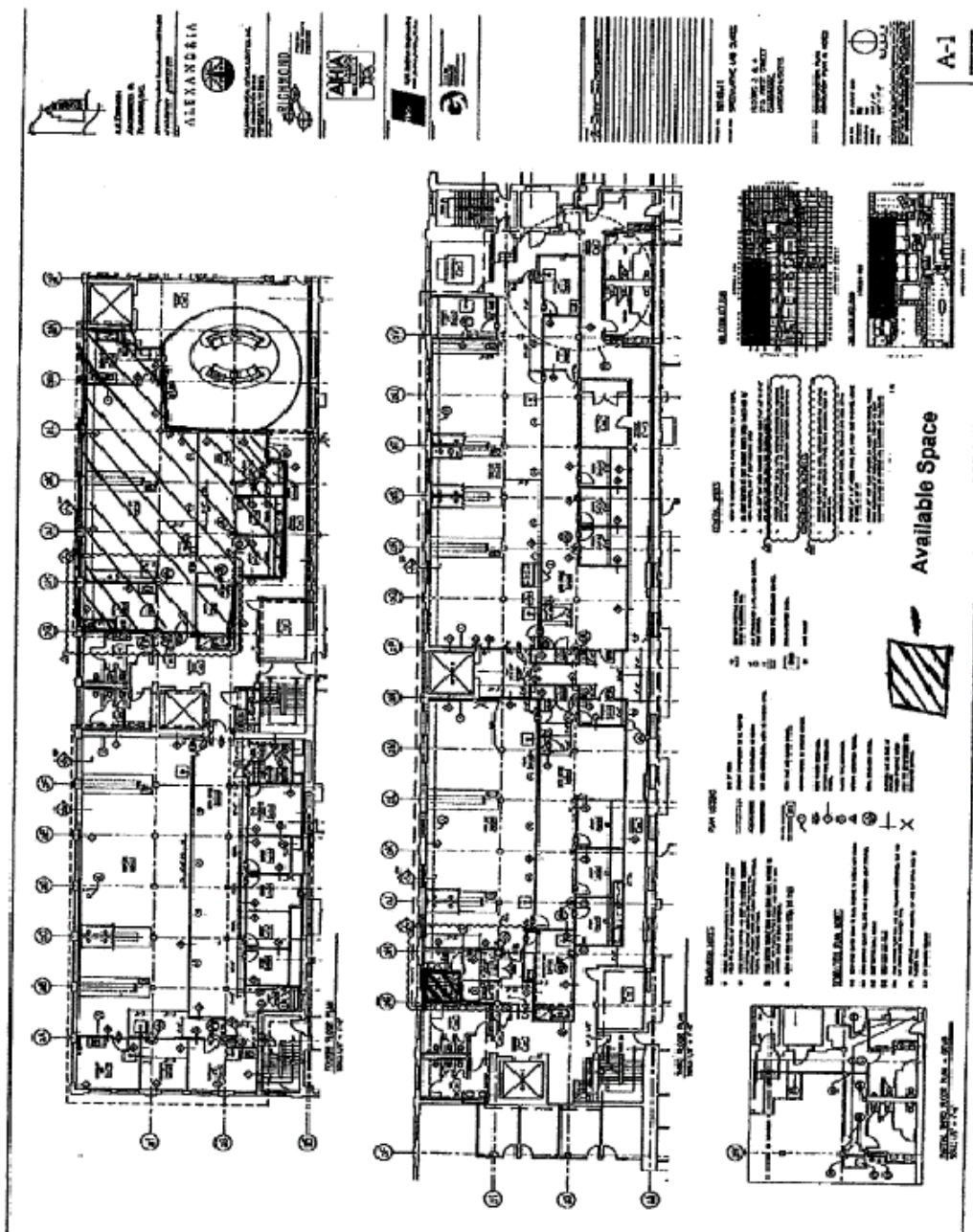
increases. However, measures to minimize exposure, and consequently minimize the accumulation of asbestos fibers, reduce the risks of adverse health effects.

The O&M Program describes a number of activities that should be avoided in order to prevent a release of asbestos fibers. In particular, you should be aware that some of the activities which may present a health risk include moving, drilling, boring, or otherwise disturbing ACMs. Consequently, such activities should not be attempted by any person not qualified to handle ACMs.

The O&M Program is available for review during regular business hours at Landlord's office located at 700 Technology Square, Suite 302, Cambridge, MA 02139.

EXHIBIT K TO LEASE

AVAILABLE SPACE



Confidential Materials omitted and filed separately with the Securities and Exchange Commission. Asterisks denote omissions.

WHITEHEAD INSTITUTE FOR BIOMEDICAL RESEARCH

And

VERASTEM, INC.

**EXCLUSIVE PATENT LICENSE AND
TANGIBLE PROPERTY AGREEMENT**

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**WHITEHEAD INSTITUTE FOR BIOMEDICAL RESEARCH
EXCLUSIVE PATENT LICENSE AND TANGIBLE PROPERTY AGREEMENT**

This Agreement, effective as of October 13, 2010 (the "EFFECTIVE DATE"), is by and between the **Whitehead Institute for Biomedical Research** ("WHITEHEAD"), a Delaware corporation, with a principal office at Nine Cambridge Center, Cambridge, Massachusetts 02142, and **Verastem, Inc.** ("COMPANY"), a Delaware corporation, with a principal place of business at c/o Longwood Founders Fund, 800 Boylston Street, Suite 1555, Boston, Massachusetts 02199.

RECITALS

WHEREAS, WHITEHEAD and the Massachusetts Institute of Technology, a Massachusetts corporation with a principal office at 77 Massachusetts Avenue, Cambridge, Massachusetts 02139 (“M.I.T.”) are the owners of certain PATENT RIGHTS (as later defined herein) relating to WHITEHEAD Case No. [**] (M.I.T. Case No. [**]), and WHITEHEAD and M.I.T. have the right to grant licenses under said PATENT RIGHTS;

WHEREAS, the PATENT RIGHTS and TANGIBLE PROPERTY (as later defined herein) were developed in part at the Broad Institute of M.I.T. and Harvard, having a principal place of business at Seven Cambridge Center, Cambridge, Massachusetts, 02142 (“BROAD”);

WHEREAS BROAD was a department of M.I.T. at the time of development of the PATENT RIGHTS and TANGIBLE PROPERTY and is now an independent research institution, and BROAD is not a party to this Agreement;

WHEREAS, M.I.T. has authorized WHITEHEAD to act as its sole and exclusive agent for the purposes of licensing the PATENT RIGHTS and TANGIBLE PROPERTY, and M.I.T. has authorized WHITEHEAD to enter into this Agreement on its behalf;

WHEREAS, WHITEHEAD and M.I.T. desire to have the PATENT RIGHTS and TANGIBLE PROPERTY developed and commercialized to benefit the public and WHITEHEAD is willing to grant a license thereunder;

WHEREAS, COMPANY has represented to WHITEHEAD, to induce WHITEHEAD to enter into this Agreement, that COMPANY shall commit itself to a program of exploiting the PATENT RIGHTS and TANGIBLE PROPERTY for the purpose of promoting public utilization; and

WHEREAS, COMPANY desires to obtain a license under the PATENT RIGHTS and TANGIBLE PROPERTY upon the terms and conditions hereinafter set forth.

NOW, THEREFORE, WHITEHEAD and COMPANY hereby agree as follows:

1. DEFINITIONS

1.1 “AFFILIATE” will mean any legal entity (such as a corporation, partnership, or limited liability company) that is controlled by COMPANY. For the purposes of this definition, the term “control” means (i) beneficial ownership of at least fifty percent (50%) of the voting securities of a corporation or other business organization with voting securities or (ii) a fifty percent (50%) or greater interest in the net assets or profits of a partnership or other business organization without voting securities.

1.2 “CORPORATE PARTNER” will mean:

- (i) any entity which agrees to compensate COMPANY or AFFILIATE or SUBLICENSEE for COMPANY’S or AFFILIATE’S or SUBLICENSEE’S practice of the PATENT RIGHTS, LICENSED PRODUCTS, IDENTIFIED PRODUCTS, and/or LICENSED PROCESSES on behalf of or in collaboration

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with such entity, including without limitation for discovery and development activities for LICENSED PRODUCTS, IDENTIFIED PRODUCTS, and/or LICENSED PROCESSES;

- (ii) any entity, other than an AFFILIATE or SUBLICENSEE, which sells, distributes, imports, or exports LICENSED PRODUCTS or IDENTIFIED PRODUCTS under an agreement with COMPANY, AFFILIATE, or SUBLICENSEE.

Any entity which meets the foregoing criteria and also receives a sublicense of the PATENT RIGHTS and/or TANGIBLE PROPERTY will be considered a SUBLICENSEE, and not a CORPORATE PARTNER, for the purpose of this Agreement.

1.3 “FIELD” will mean all human therapeutic, prognostic, and diagnostic uses. For the avoidance of doubt, FIELD specifically excludes the sale and/or distribution of reagents for research use (other than the provision of reagents in furtherance of the research, development, manufacture, or commercialization of LICENSED PRODUCTS, LICENSED PROCESSES, or IDENTIFIED PRODUCTS as part of a collaboration agreement with a SUBLICENSEE, or CORPORATE PARTNER). For avoidance of doubt, research use excludes (i) the high- throughput commercial discovery or commercial development of pharmaceuticals (including high-throughput screening of pharmaceutical candidates for human therapeutic, prognostic, and diagnostic uses); and (ii) services conducted to discover or develop pharmaceuticals. The foregoing definition is intended to define research use solely for purposes of this Section 1.3 and shall not limit the definition of research use anywhere else in this Agreement (including Section 2.7).

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1.4 “IDENTIFIED PRODUCT” will mean (i) any product identified, selected, or determined by COMPANY or an AFFILIATE or SUBLICENSEE to have activity or utility through the use of LICENSED PRODUCTS, LICENSED PROCESSES, and/or TANGIBLE PROPERTY, or (ii) any product identified, selected, or determined to have activity or utility on a target, including but not limited to cellular receptors, transcription factors, and autocrine/paracrine signaling molecules, identified by COMPANY or AFFILIATE or SUBLICENSEE through the use of LICENSED PRODUCTS, LICENSED PROCESSES, and/or TANGIBLE PROPERTY.

For any IDENTIFIED PRODUCT which also falls within the definition of LICENSED PRODUCT, such IDENTIFIED PRODUCT will be deemed a LICENSED PRODUCT for the purpose of this Agreement.

1.5 “IND” will mean, with respect to a particular LICENSED PRODUCT or IDENTIFIED PRODUCT, an Investigational New Drug application submitted to the FDA, or a corresponding application filed with any other regulatory agency, seeking approval to begin tests of a new drug in human subjects.

1.6 “LICENSED PROCESS” will mean any process that, in whole or in part: (i) absent the license granted hereunder, would infringe one or more VALID CLAIMS; or (ii) uses a LICENSED PRODUCT as defined in Section 1.7(i).

1.7 “LICENSED PRODUCT” will mean any product that, in whole or in part:

(i) absent the license granted hereunder, would infringe one or more VALID CLAIMS; or

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(ii) is manufactured by using or that, when used, practices a LICENSED PROCESS as defined in Section 1.6 (i); or

(iii) is manufactured by using or incorporates TANGIBLE PROPERTY.

For clarity, for the purpose of defining “manufactured” (as used above), it is understood that the testing or screening of compounds for activity or utility, other than in quality control and/or quality assurance, does not constitute “manufacturing” of such compounds.

1.8 “LICENSED SERVICE” will mean any service COMPANY or AFFILIATE or SUBLICENSEE performs for a third party that cannot be developed or performed, in whole or in part, without COMPANY using a LICENSED PRODUCT or IDENTIFIED PRODUCT or TANGIBLE PROPERTY, or performing a LICENSED PROCESS.

1.9 “NDA” will mean a New Drug Application submitted to the FDA seeking approval to market and sell a LICENSED PRODUCT or IDENTIFIED PRODUCT in the United States of America, or a corresponding application filed with any other regulatory agency seeking approval to market and sell a LICENSED PRODUCT or IDENTIFIED PRODUCT in a country in the TERRITORY.

1.10 “NET SALES” will mean the gross amount billed by COMPANY, AFFILIATES, SUBLICENSEES, and CORPORATE PARTNERS for LICENSED PRODUCTS and IDENTIFIED PRODUCTS less the following:

(i) customary trade, quantity, or cash discounts to the extent actually allowed and taken;

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(ii) amounts repaid or credited by reason of rejection or return;

(iii) discounts or rebates or other payments required by law to be made under Medicaid, Medicare or other governmental special medical assistance programs, to the extent actually allowed and taken;

(iv) to the extent separately stated on purchase orders, invoices, or other documents of sale, any taxes or other governmental charges levied on the production, sale, transportation, delivery, or use of a LICENSED PRODUCT or IDENTIFIED PRODUCT, which is paid by or on behalf of COMPANY or its AFFILIATES or SUBLICENSEES or CORPORATE PARTNERS; and

(v) outbound transportation costs prepaid or allowed and costs of insurance in transit.

No deductions will be made for commissions paid to individuals whether they are with independent sales agencies or regularly employed by COMPANY, AFFILIATES, SUBLICENSEES, or CORPORATE PARTNERS and on its payroll, or for cost of collections. NET SALES will occur on the date of billing for a LICENSED PRODUCT or IDENTIFIED PRODUCT. If a LICENSED PRODUCT or IDENTIFIED PRODUCT is billed at a discounted price that is substantially lower than the customary price charged by COMPANY (taking into account customary pricing charged for a governmental entity or in various countries), or billed for non-cash consideration (whether or not at a discount), NET SALES will be calculated based on the non-discounted amount of the LICENSED PRODUCT or IDENTIFIED PRODUCT charged to an independent third party during the same REPORTING PERIOD or, in the absence

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of such sales, on the fair market value of the LICENSED PRODUCT or IDENTIFIED PRODUCT.

Non-monetary consideration will not be accepted by COMPANY, any AFFILIATE, or any SUBLICENSEE for any commercial sale or other commercial disposition of LICENSED PRODUCT or IDENTIFIED PRODUCT without the prior written consent of WHITEHEAD.

1.11 “PATENT CHALLENGE” will mean a legal or administrative challenge to the validity, patentability, or enforceability of any of the PATENT RIGHTS (as defined below) or otherwise opposing any of the PATENT RIGHTS through a legal or administrative proceeding.

1.12 “PATENT RIGHTS” will mean:

- (i) the United States and international patents listed on Appendix A;
- (ii) the United States and international patent applications and/or provisional applications listed on Appendix A and the resulting patents;
- (iii) any patent applications resulting from the provisional applications listed on Appendix A, and any divisionals, continuations, continuation-in-part applications, and continued prosecution applications (and their relevant international equivalents) of the patent applications listed on Appendix A and of such patent applications that result from the provisional applications listed on Appendix A, to the extent the claims are directed to subject matter specifically described in the patent applications listed on Appendix A, and the resulting patents;

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- (iv) any patents resulting from reissues, reexaminations, or extensions (and their relevant international equivalents) of the patents described in (i), (ii), and (iii) above; and
- (v) international (non-United States) patent applications and provisional applications filed after the EFFECTIVE DATE and the relevant international equivalents to divisionals, continuations, continuation-in-part applications and continued prosecution applications of the patent applications to the extent the claims are directed to subject matter specifically described in the patents or patent applications referred to in (i), (ii), (iii), and (iv) above, and the resulting patents.

1.13 “PHASE I TRIAL” will mean a clinical study of a LICENSED PRODUCT or IDENTIFIED PRODUCT that generally provides for the first introduction of such product into a human subject, with the primary purpose of determining safety, metabolism and pharmacokinetic properties and clinical pharmacology of such product.

1.14 “PHASE II TRIAL” will mean a clinical study of a LICENSED PRODUCT or IDENTIFIED PRODUCT conducted to obtain preliminary data on the effectiveness of the LICENSED PRODUCT or IDENTIFIED PRODUCT for a particular indication or indications in human subjects with the disease or condition and the possible short-term side effects and risks associated with the LICENSED PRODUCT or IDENTIFIED PRODUCT.

1.15 “PHASE III TRIAL” will mean a clinical study of a LICENSED PRODUCT or IDENTIFIED PRODUCT in human subjects for the purpose of gathering the definitive

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information about efficacy, dosage, and safety in the proposed therapeutic indication that is needed for the FDA or other appropriate regulatory agency to evaluate the overall benefit-risk relationship of the LICENSED PRODUCT or IDENTIFIED PRODUCT prior to granting (or denying) approval to market the drug.

1.16 “REPORTING PERIOD” will begin on the first day of each calendar quarter and end on the last day of such calendar quarter.

1.17 “SERVICE INCOME” will mean:

- (i) the gross amount billed by COMPANY, AFFILIATES, and SUBLICENSEES for the performance of LICENSED PROCESSES, and
- (ii) without duplication, any payments received by COMPANY and AFFILIATES, and SUBLICENSEES in consideration of the performance of LICENSED PROCESSES including without limitation upfront or periodic fees, milestone payments, and other payments.

For the purpose of Section 1.17 (i), billing will occur on the earlier of the receipt of payment or [**] days after the date of billing. If LICENSED PROCESSES are performed or provided at a discounted price that is substantially lower than the customary price charged by COMPANY, or distributed for non-cash consideration (whether or not at a discount), SERVICE INCOME will be calculated based on the non-discounted amount charged to an independent

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third party during the same REPORTING PERIOD or, in the absence of such sales, on the fair market value for the performance of LICENSED PROCESSES.

No deductions will be made for commissions paid to individuals whether they are with independent sales agencies or regularly employed by COMPANY, AFFILIATES, or SUBLICENSEES and on its payroll, or for cost of collections.

Non-monetary consideration will not be accepted by COMPANY, any AFFILIATE, or any SUBLICENSEE for the commercial performance of any LICENSED PROCESS without the prior written consent of WHITEHEAD.

1.18 “SUBLICENSE INCOME”

(a) “SUBLICENSE INCOME” will mean the following:

- (i) all payments that COMPANY receives from a SUBLICENSEE in consideration of the sublicense of the rights granted to COMPANY under Section 2.1, including without limitation license fees, milestone payments, license maintenance fees,

and other payments; and

- (ii) all payments that COMPANY and AFFILIATES and SUBLICENSEES receive from a CORPORATE PARTNER in consideration of any of the rights described in Section 1.2, including without limitation fees, milestone payments, agreement maintenance fees, and other payments.
- (b) “SUBLICENSE INCOME” specifically excludes the following:

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- (i) royalties on NET SALES;
- (ii) payments made by SUBLICENSEE or CORPORATE PARTNER as consideration for the issuance of equity or debt securities of COMPANY at Fair-Market Value, as defined in Section 4.1(h) (“Equity”); provided that, if a SUBLICENSEE or CORPORATE PARTNER pays more than Fair-Market Value for equity or debt securities, then the portion in excess of Fair-Market Value will be considered SUBLICENSE INCOME;
- (iii) payments to COMPANY or AFFILIATE from a SUBLICENSEE or CORPORATE PARTNER for the purposes of funding (or reimbursing for work to-be conducted in the future) the costs of bona fide research and development of LICENSED PRODUCTS and/or IDENTIFIED PRODUCTS and that are expressly intended only to fund or pay for (1) the purchase or use of equipment, supplies, products or services, or (2) the use of employees and/or consultants to achieve a research or development goal, or (3) for funding clinical trials, as indicated by their inclusion as specific line items (or by other language reasonably conveying such express intent) in a written agreement between COMPANY (or AFFILIATE) and the SUBLICENSEE, or between COMPANY (or AFFILIATE or SUBLICENSEE) and CORPORATE PARTNER.

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Non-monetary consideration will not be accepted by COMPANY or an AFFILIATE for any sublicense of the PATENT RIGHTS or any corporate partnership related to the PATENT RIGHTS without the prior written consent of WHITEHEAD. In the event that non-monetary consideration is received for any sublicense of the PATENT RIGHTS or any corporate partnership related to the PATENT RIGHTS, SUBLICENSE INCOME will be calculated based on the fair market value of such non-monetary consideration (including all elements of such consideration), as determined by the parties in good faith. Consideration for any and all sublicenses of the PATENT RIGHTS or any corporate partnership related to the PATENT RIGHTS, including royalty consideration, will be on commercially reasonable terms and conditions consistent with amounts paid for similar technology in the industry at the time such agreement is executed.

1.19 “SUBLICENSEE” will mean any non-AFFILIATE sublicensee of the rights granted COMPANY under Section 2.1.

1.20 “TANGIBLE PROPERTY” will mean the materials described in Appendix D whether by itself or incorporated into another, and any progeny and unmodified derivatives.

1.21 “TERM” will mean the term of this Agreement, which will commence on the EFFECTIVE DATE and will remain in effect until the expiration or abandonment of all issued patents and filed patent applications within the PATENT RIGHTS, unless earlier terminated in accordance with the provisions of this Agreement.

1.22 “TERRITORY” will mean worldwide.

1.23 “VALID CLAIM” will mean a claim of the following:

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- (i) an issued patent under the PATENT RIGHTS which has not been revoked or held unenforceable or invalid by a decision of a court or other governmental agency of competent jurisdiction, unappealable or unappealed within the time allowed for appeal and which has not been admitted to be invalid or unenforceable through reissue or disclaimer or otherwise; or
- (ii) a pending patent application under the PATENT RIGHTS which has not been abandoned or finally disallowed without the possibility of appeal or re-filing of such application and which has not been pending for more than [**] years from the date such application was first examined and has been prosecuted in good faith.

2. GRANT OF RIGHTS

2.1 License Grants.

(a) PATENT RIGHTS. Subject to the terms of this Agreement, WHITEHEAD hereby grants to COMPANY and its AFFILIATES for the TERM a royalty-bearing license under the PATENT RIGHTS to develop, make, have made, use, sell, offer to sell, lease, and import LICENSED PRODUCTS in the FIELD in the TERRITORY and to develop and perform LICENSED PROCESSES in the FIELD in the TERRITORY.

(b) TANGIBLE PROPERTY. Subject to the terms of this Agreement, WHITEHEAD hereby grants to COMPANY and its AFFILIATES for the TERM a

royalty-bearing nonexclusive license to use the TANGIBLE PROPERTY to develop, make, have made, use, sell, offer to sell, lease, and import LICENSED PRODUCTS in the FIELD in the TERRITORY and to develop and perform LICENSED PROCESSES in the FIELD in the TERRITORY. Legal title to the TANGIBLE PROPERTY will remain with WHITEHEAD and M.I.T.

2.2 Exclusivity.

(a) PATENT RIGHTS. Subject to the terms of this Agreement, in order to establish an exclusive period for COMPANY, WHITEHEAD agrees that it shall not grant (and has not granted as of the EFFECTIVE DATE, except as provided in Section 2.7) any other license under the PATENT RIGHTS to make, have made, use, sell, lease, import or sublicense LICENSED PRODUCTS in the FIELD in the TERRITORY or to develop, perform or sublicense LICENSED PROCESSES in the FIELD in the TERRITORY during the TERM, unless the conditions set forth in Section 2.4 occur and are not remedied by the COMPANY (herein defined as "EXCLUSIVE PERIOD").

(b) Consequences of PATENT CHALLENGE. In the event that (1) COMPANY or AFFILIATES brings a PATENT CHALLENGE or assists another party in bringing a PATENT CHALLENGE against WHITEHEAD and M.I.T. (except as required under a court order or subpoena) or (2) a SUBLICENSEE brings a PATENT CHALLENGE or assists another party in bringing a PATENT CHALLENGE against WHITEHEAD and M.I.T. (except as required under a court order or subpoena) and COMPANY does not terminate such SUBLICENSEE'S sublicense upon notice by WHITEHEAD, then in either case ((1) or (2)), COMPANY agrees that (i)

WHITEHEAD, in its sole discretion, may choose at any time following the initiation of such PATENT CHALLENGE to grant one or more licenses to third parties under the PATENT RIGHTS to discover, develop, make, have made, use, sell, lease and import LICENSED PRODUCTS in the FIELD in the TERRITORY and to develop and perform LICENSED PROCESSES in the FIELD in the TERRITORY; (ii) the EXCLUSIVE PERIOD will immediately terminate; and (iii) COMPANY and AFFILIATES shall immediately destroy all TANGIBLE PROPERTY and COMPANY shall confirm such destruction in writing to WHITEHEAD (and COMPANY shall contractually obligate its SUBLICENSEES to do the same).

2.3 Sublicenses.

(a) PATENT RIGHTS. COMPANY will have the right to grant sublicenses of its rights under Section 2.1(a). COMPANY shall incorporate terms and conditions into its sublicense agreements sufficient to enable COMPANY to comply with this Agreement. COMPANY shall also include provisions in all sublicenses to provide that in the event that SUBLICENSEE brings a PATENT CHALLENGE against WHITEHEAD and M.I.T. or assists another party in bringing a PATENT CHALLENGE against WHITEHEAD and M.I.T. (except as required under a court order or subpoena), then COMPANY may terminate the sublicense. COMPANY shall promptly furnish WHITEHEAD with a fully signed photocopy of any sublicense agreement.

(b) SURVIVAL OF SUBLICENSE AGREEMENT. Upon termination of this Agreement for any reason (other than by COMPANY pursuant to Section 13.1), each sublicense granted by COMPANY to a SUBLICENSEE not then in default of its

sublicense agreement with COMPANY will survive such termination as a direct license from WHITEHEAD, provided that (i) such direct license shall be subject to the same non-financial terms and conditions as those in this Agreement; (ii) such SUBLICENSEE (or if there is at such time more than one such sublicensee, such SUBLICENSEES severally and jointly) shall be required to reimburse patent costs pursuant to Section 4.1(a) and to make any annual fees due pursuant to Section 4.1(b); and (iii) each such SUBLICENSEE shall be required to make one of the following, at WHITEHEAD's one-time written election promptly following the termination of this Agreement: (1) any monetary payment(s) that, had this Agreement not been terminated, COMPANY would have been required to make under this Agreement as a result of the activities of such SUBLICENSEE or (2) any monetary payments(s) that, had this Agreement not been terminated, SUBLICENSEE would have been required to make to COMPANY under the sublicense agreement between COMPANY and SUBLICENSEE as a result of the activities of such SUBLICENSEE; provided, however, that WHITEHEAD shall only be permitted to make the election specified in subsection (2) above if WHITEHEAD agrees in writing to be bound by all of COMPANY'S obligations in the applicable sublicense agreement, as though WHITEHEAD were COMPANY. Each such SUBLICENSEE shall be an intended third-party beneficiary of the preceding sentence.

(c) TANGIBLE PROPERTY. COMPANY will have the right to grant sublicenses of its rights under Section 2.1(b) only in the context of a bona fide written agreement with one or more third parties for the development of LICENSED PRODUCTS and/or LICENSED PROCESSES, which also includes a sublicense to COMPANY'S rights under the PATENT RIGHTS.

2.4 Mandatory Sublicensing.

(a) Beginning [**] years from the EFFECTIVE DATE, if WHITEHEAD or M.I.T. or BROAD or COMPANY receives a bona fide request from a third party for a sublicense to the PATENT RIGHTS to develop, make, have made, use, sell, offer to sell, lease, and import a LICENSED PRODUCT or LICENSED PROCESS, which proposed product or process ("PROPOSED PRODUCT") is not directly competitive with

any LICENSED PRODUCT, IDENTIFIED PRODUCT or LICENSED PROCESS then offered for sale or in bona fide development, as evidenced by at least [**] FTEs working on it over the previous [**] months by COMPANY (or AFFILIATE or SUBLICENSEE), then COMPANY shall enter into good-faith negotiations toward granting at least a non-exclusive sublicense, limited to the proposed field only, to such third party for such third party's PROPOSED PRODUCT. As an alternative to negotiating a sublicense to a third party, COMPANY (or its AFFILIATES or SUBLICENSEES) may submit to WHITEHEAD, within [**] months after such third party's request for a sublicense, a plan for prompt and diligent development of the PROPOSED PRODUCT, including a commitment to commercially reasonable development milestones. If WHITEHEAD approves this plan, such approval not to be unreasonably withheld, no third-party sublicense will be required for each such PROPOSED PRODUCT pursuant to this Section 2.4(a), and Section 2.4(b) below shall not apply.

(b) If COMPANY has not granted a sublicense to the third party under Section 2.4(a) within [**] months after receiving the request in writing, and if WHITEHEAD has not granted COMPANY a waiver of this requirement as provided for in Section 2.4(a), then WHITEHEAD will have the right to grant a license to the third

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party. The [**]-month period during which COMPANY may grant a sublicense, prior to WHITEHEAD assuming such right, will be extended an additional [**] months if, at the end of the initial [**]-month period, both COMPANY and the prospective third-party sublicensee assert to WHITEHEAD that they are engaged in good-faith negotiations toward the completion of a sublicense agreement. Should WHITEHEAD grant a license under this Section 2.4(b), the field of use licensed in such license agreement will be excluded from the FIELD, and all of COMPANY'S rights in the excluded field of use will terminate. COMPANY will have the right to review the license grant to ensure that it does not interfere with indications within the FIELD under development by COMPANY, AFFILIATE or SUBLICENSEE.

2.5 Required agreement for CORPORATE PARTNERS. COMPANY acknowledges that the value of PATENT RIGHTS and TANGIBLE PROPERTY is measured in part by its value in identifying IDENTIFIED PRODUCTS. Therefore, COMPANY agrees that COMPANY, AFFILIATES, and SUBLICENSEES shall not sell, transfer, or otherwise make available IDENTIFIED PRODUCTS to any CORPORATE PARTNER and shall not provide services or proprietary information with respect to any IDENTIFIED PRODUCTS to any CORPORATE PARTNER, unless such CORPORATE PARTNER agrees to the provisions substantially as set forth in Appendix E ("Corporate Partner Agreement"). COMPANY shall promptly furnish WHITEHEAD with a fully signed photocopy of any Corporate Partner Agreement.

2.6 U.S. Manufacturing. To the extent required by applicable law or regulation, COMPANY agrees that any LICENSED PRODUCTS used or sold in the United States will be manufactured substantially in the United States, unless a waiver of such obligation is obtained

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from the required government agency. If COMPANY desires to seek a waiver of such requirements, WHITEHEAD agrees to provide reasonable assistance in the application process for such waiver, upon request of COMPANY.

2.7 Retained Rights.

(a) WHITEHEAD and MIT. WHITEHEAD and M.I.T. retain the right to practice under the PATENT RIGHTS and TANGIBLE PROPERTY for research, teaching, and educational purposes.

(b) Academic and Not-For-Profit Research Institutes. WHITEHEAD and M.I.T. retain the right to grant licenses to academic and not-for-profit research institutes to practice under the PATENT RIGHTS and TANGIBLE PROPERTY for research, teaching, and educational purposes.

(c) Federal Government. COMPANY acknowledges that the U.S. federal government retains a royalty-free, non-exclusive, non-transferable license to practice any government-funded invention claimed in any PATENT RIGHTS as set forth in 35 U.S.C. §§ 201-211, and the regulations promulgated thereunder, as amended, or any successor statutes or regulations.

2.8 Ownership of Modifications. WHITEHEAD and M.I.T. retain ownership of any TANGIBLE PROPERTY, whether or not included or incorporated within modifications.

2.9 Transfer to Third Parties. COMPANY agrees not to transfer the TANGIBLE PROPERTY to any other parties, except to permitted SUBLICENSEES as provided herein.

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2.10 No Additional Rights. Nothing in this Agreement will be construed to confer any rights upon COMPANY by implication, estoppel, or otherwise as to any technology or patent rights of WHITEHEAD, M.I.T., or BROAD or any other entity other than the PATENT RIGHTS, regardless of whether such technology or patent rights will be dominant or subordinate to any PATENT RIGHTS.

2.11 Marketing of Screening Discoveries. WHITEHEAD will notify COMPANY concurrently with marketing to third parties if and when WHITEHEAD seeks to license any Screening Discoveries (described below) developed or conceived within [**] years of the EFFECTIVE DATE, and COMPANY will be on equal footing with other parties to negotiate a license thereto subject to any funding obligations. For the purpose of this Section 2.11, "Screening Discoveries" will mean the identification of biological or chemical compounds that selectively target cancer stem cell-like cells generated by induction through an epithelial- mesenchymal transition provided that such identification was made solely in the WHITEHEAD laboratory of Robert A. Weinberg.

3. COMPANY DILIGENCE OBLIGATIONS

3.1 COMPANY shall use commercially reasonable efforts, or shall cause its AFFILIATES and SUBLICENSEES to use commercially reasonable efforts, to develop LICENSED PRODUCTS or LICENSED PROCESSES and to introduce LICENSED PRODUCTS or LICENSED PROCESSES into the commercial market; thereafter, COMPANY or AFFILIATES or SUBLICENSEES shall make LICENSED PRODUCTS or LICENSED PROCESSES reasonably available to the public. Specifically, COMPANY shall fulfill the following obligations:

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- (i) Within [**] days after the EFFECTIVE DATE, COMPANY shall furnish WHITEHEAD with a written research and development plan describing the major tasks to be achieved in order to bring to market a LICENSED PRODUCT, IDENTIFIED PRODUCT or LICENSED PROCESS, specifying the number of staff and other resources to be devoted to such commercialization effort;
 - (ii) Within [**] days after the end of each calendar year, COMPANY shall furnish WHITEHEAD with a written report (consistent with Section 5.1(a)) on the progress of its efforts during the immediately preceding calendar year to develop and commercialize LICENSED PRODUCTS, IDENTIFIED PRODUCTS or LICENSED PROCESSES. The report will also contain a discussion of intended efforts and sales projections, if any, for the year in which the report is submitted;
 - (iii) Within [**] days after the EFFECTIVE DATE, COMPANY shall raise at least Five-Million dollars (\$5,000,000) in cash in exchange for COMPANY'S Capital Stock (it being understood that the foregoing requirement shall be deemed to be satisfied by the equity financing of the COMPANY contemplated as of the EFFECTIVE DATE, which involves a Twelve-Million dollar (\$12,000,000) cash commitment from investors over two tranches, provided that a first tranche payment of at least Three Million dollars (\$3,000,000) is made no later than [**] days after the EFFECTIVE DATE);

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- (iv) Within [**] months after the EFFECTIVE DATE, COMPANY or AFFILIATE or SUBLICENSEE shall [**];
 - (v) Within [**] years after the EFFECTIVE DATE, COMPANY or AFFILIATE or SUBLICENSEE shall [**]; and
 - (vi) Within [**] years after the EFFECTIVE DATE, COMPANY or AFFILIATE or SUBLICENSEE shall [**].

In the event that COMPANY or AFFILIATE or SUBLICENSEE, alone or together, has not performed one or more of Sections 3.1(i) through (vi), then WHITEHEAD may treat such failure as a material breach in accordance with Section 13.3(b).

3.2 If, in any calendar year, COMPANY or AFFILIATE or SUBLICENSEE, alone or together, has performed any one of the following, then COMPANY will be deemed to have complied with COMPANY'S obligations under this Section 3.2:

- (i) beginning in calendar year 2011, has expended a minimum of [**] Dollars (\$[**]) annually for [**] of a LICENSED PRODUCT, IDENTIFIED PRODUCT or LICENSED PROCESS;
- (ii) is actively [**] with respect to a LICENSED PRODUCT or IDENTIFIED PRODUCT;
- (iii) is actively [**] with respect to a LICENSED PRODUCT or IDENTIFIED PRODUCT;

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- (iv) is actively [**] with respect to a LICENSED PRODUCT or IDENTIFIED PRODUCT;
 - (v) [**] with respect to a LICENSED PRODUCT or IDENTIFIED PRODUCT within [**] of a [**];
 - (vi) [**] LICENSED PRODUCT or IDENTIFIED PRODUCT;
 - (vii) is [**] for a LICENSED PRODUCT or IDENTIFIED PRODUCT;
 - (viii) [**] for a LICENSED PRODUCT or IDENTIFIED PRODUCT;
 - (ix) a LICENSED PRODUCT or IDENTIFIED PRODUCT is [**].

In the event that none of Sections 3.2(i) through (ix) have been performed by COMPANY or AFFILIATES or SUBLICENSEES, alone or together, during a calendar year, then WHITEHEAD may treat such failure as a material breach in accordance with Section 13.3(b).

3.3 Beginning [**] years from the EFFECTIVE DATE, if COMPANY, AFFILIATES, or SUBLICENSEES are not actively conducting biological or chemical high-throughput screens using a LICENSED PRODUCT or LICENSED PROCESS to identify IDENTIFIED COMPOUNDS (as evidenced by the performance of such high-throughput screen by COMPANY, AFFILIATES, or SUBLICENSEES within a rolling [**]-month period beginning on the [**] anniversary of the EFFECTIVE DATE), then WHITEHEAD may choose to grant one or more licenses to third parties under the PATENT RIGHTS, including without limitation, to develop, make, have made, use, sell, offer to sell, lease, and import LICENSED PRODUCTS in the FIELD in the TERRITORY; and to develop and perform LICENSED

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PROCESSES in the FIELD in the TERRITORY, and the EXCLUSIVE PERIOD under Section 2.2 will immediately terminate. Notwithstanding the foregoing, the loss of exclusivity will not apply to claims in the PATENT RIGHTS directed towards the use of specific compounds for the treatment of human diseases that are being actively developed by COMPANY (or any other specific compounds that the COMPANY has a bona fide plan to develop as backups (as defined in Section 4.1(c)(l)) to one or more of such actively developed compounds) as evidenced in its Reports to WHITEHEAD.

4. ROYALTIES AND PAYMENT TERMS

4.1 Consideration for Grant of Rights.

(a) License Issue Fee and Patent Cost Reimbursement. COMPANY shall pay to WHITEHEAD, no later than [**] days after the EFFECTIVE DATE, a license issue fee of [**] dollars (\$[**]), and, such amounts required as reimbursement in accordance with Section 6.3, relating to actual expenses incurred in connection with obtaining the PATENT RIGHTS. These payments are nonrefundable.

(b) License Maintenance Fees. COMPANY shall pay to WHITEHEAD the following license maintenance fees on January 1 of each year set forth below:

<u>Year</u>	<u>Maintenance Fee</u>
2011	\$ [**]
2012	\$ [**]
2013	\$ [**]
2014	\$ [**]
2015 and every year thereafter	\$ [**]

The license maintenance fee is nonrefundable. The license maintenance fee will be credited to running royalties subsequently due on NET SALES earned during the same calendar

year, if any, and license maintenance fees paid in excess of running royalties due in such calendar year will not be creditable to amounts due for future years. The license maintenance fee is not creditable against any other payment due hereunder.

(c) Milestone Payments. COMPANY shall pay to WHITEHEAD the following milestone payments upon first achievement of the following milestones whether by COMPANY, AFFILIATE, SUBLICENSEE, or CORPORATE PARTNER. These milestone payments are nonrefundable and noncreditable.

- (1) For each LICENSED PRODUCT:
 - (i) [**] Dollars (\$[**]) upon the [**];
 - (ii) [**] Dollars (\$[**]) upon the [**];
 - (iii) [**] Dollars (\$[**]) upon the [**]; and
 - (iv) [**] Dollars (\$[**]) upon [**];

provided, however, that in the event that any LICENSED PRODUCT does not proceed through all the foregoing stages, no duplication of milestone payments shall be made for any backup compounds. As used in this subsection (1), a "backup compound" means a LICENSED PRODUCT (x) that is directed to the same molecular target as another LICENSED PRODUCT then or previously in research and development and (y) that supplants or is intended to supplant such other LICENSED PRODUCT.

- (2) For each IDENTIFIED PRODUCT:
 - (i) [**] Dollars (\$[**]) upon [**];

- (ii) [**] Dollars (\$[**]) upon the [**];
- (iii) [**] Dollars (\$[**]) upon the [**];
- (iv) [**] Dollars (\$[**]) upon the [**]; and
- (v) [**] Dollars (\$[**]) upon [**].

provided, however, that in the event that any IDENTIFIED PRODUCT does not proceed through all the foregoing stages, no duplication of milestone payments shall be made for any back-up compounds. As used in this subsection (2), a "backup compound" means an IDENTIFIED PRODUCT (x) that is directed to the same molecular target as another IDENTIFIED PRODUCT then or previously in research and development and (y) that supplants or is intended to supplant such other IDENTIFIED PRODUCT.

(3) For each LICENSED PRODUCT and IDENTIFIED PRODUCT that is a diagnostic or prognostic test: [**] Dollars (\$[**]) upon the [**].

(4) For the first patent issuance of PATENT RIGHTS anywhere in the group of countries consisting of the U.S., U.K., France, Germany, Spain, and Italy: [**] Dollars (\$[**]). For the avoidance of doubt, this payment shall be paid no more than once.

(d) Running Royalties:

(i) LICENSED PRODUCTS.

For therapeutics: COMPANY shall pay to WHITEHEAD a running royalty of [**] Percent ([**]%) of NET SALES of LICENSED

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PRODUCTS, whether by COMPANY, AFFILIATE, SUBLICENSEE, or CORPORATE PARTNER, for cumulative NET SALES, whether by COMPANY, AFFILIATE, SUBLICENSEE, or CORPORATE PARTNER, of such LICENSED PRODUCT less than [**] Dollars (\$[**]) and a running royalty of [**] Percent ([**]%) of NET SALES, whether by COMPANY, AFFILIATE, SUBLICENSEE, or CORPORATE PARTNER, of LICENSED PRODUCTS for cumulative NET SALES, whether by COMPANY, AFFILIATE, SUBLICENSEE, or CORPORATE PARTNER, of [**] Dollars (\$[**]) and more;

For diagnostics and/or prognostics: COMPANY shall pay to WHITEHEAD a running royalty of [**] Percent ([**]%) of NET SALES, whether by COMPANY, AFFILIATE, SUBLICENSEE, or CORPORATE PARTNER, of LICENSED PRODUCTS.

(ii) IDENTIFIED PRODUCTS. COMPANY shall pay to WHITEHEAD a running royalty of [**] Percent ([**]%) of NET SALES, whether by COMPANY, AFFILIATE, SUBLICENSEE, or CORPORATE PARTNER, of IDENTIFIED PRODUCTS.

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(iii) LICENSED SERVICE. COMPANY does not anticipate that COMPANY, AFFILIATE, or SUBLICENSEE will perform LICENSED SERVICES. In the event that COMPANY, AFFILIATE, or SUBLICENSEE will be performing LICENSED SERVICES, COMPANY and WHITEHEAD shall negotiate in good faith a commercially reasonable Running Royalty of SERVICE INCOME prior to the earliest provision of such LICENSED SERVICE by COMPANY, AFFILIATE, or SUBLICENSEE.

Running royalties will be payable for each REPORTING PERIOD and will be due to WHITEHEAD within [**] days of the end of each REPORTING PERIOD.

Running royalties for each IDENTIFIED PRODUCT under this Section 4.1(d)(ii) will be due for a period extending until the ten (10) year anniversary of the date of the first sale for consumption by an end-user patient of each said IDENTIFIED PRODUCT on a country-by-country basis. The Parties expressly agree that such a payment period is not an extension of the PATENT RIGHTS beyond their term, but rather is a period determined for the convenience of the Parties in recognition of the value of the PATENT RIGHTS and TANGIBLE PROPERTY in identifying IDENTIFIED PRODUCTS and as appropriate compensation for the rights granted herein.

The Parties agree that neither royalty-stacking nor combination-product provisions will apply to these Running Royalties.

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(e) Sharing of SUBLICENSE INCOME. COMPANY shall pay WHITEHEAD a percentage of all SUBLICENSE INCOME received by COMPANY or AFFILIATES or SUBLICENSEES according to the following schedule:

(i) For SUBLICENSE INCOME received from a CORPORATE PARTNER or SUBLICENSEE in consideration for rights granted under Section 2.3:

<u>Percent</u>	<u>Event</u>
[**]%	For sublicense and corporate partner agreements entered [**] of a LICENSED PRODUCT or IDENTIFIED PRODUCT by COMPANY or AFFILIATE.
[**]%	For sublicense and corporate partner agreements entered [**] of a LICENSED PRODUCT or IDENTIFIED PRODUCT by COMPANY or AFFILIATE.
[**]%	For sublicense and corporate partner agreements entered [**] of a LICENSED PRODUCT or IDENTIFIED PRODUCT by COMPANY or AFFILIATE.
[**]%	For sublicense and corporate partner agreements entered [**] of a LICENSED PRODUCT or IDENTIFIED PRODUCT by COMPANY or AFFILIATE.

- (ii) For SUBLICENSE INCOME received from a CORPORATE PARTNER or SUBLICENSEE in consideration for rights to an IDENTIFIED PRODUCT:

[**]% For sublicense and corporate partner agreements entered [**] of a LICENSED PRODUCT or IDENTIFIED PRODUCT by COMPANY or AFFILIATE.

[**]% For sublicense and corporate partner agreements entered [**] of a LICENSED PRODUCT or IDENTIFIED PRODUCT by COMPANY or AFFILIATE.

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[**]% For sublicense and corporate partner agreements entered [**] of a LICENSED PRODUCT or IDENTIFIED PRODUCT by COMPANY or AFFILIATE.

[**]% For sublicense and corporate partner agreements entered [**] of a LICENSED PRODUCT or IDENTIFIED PRODUCT by COMPANY or AFFILIATE.

Such amounts will be payable for each REPORTING PERIOD and will be due to WHITEHEAD within [**] days of the end of each REPORTING PERIOD.

(f) Consequences of a PATENT CHALLENGE. In the event that a PATENT CHALLENGE brought by COMPANY and/or AFFILIATES and/or SUBLICENSEES is successful (except as required under a court order or subpoena), COMPANY will have no right to recoup any royalties or other payments paid during the period of challenge. In the event that a PATENT CHALLENGE brought by COMPANY and/or AFFILIATES is unsuccessful, COMPANY shall reimburse WHITEHEAD for all reasonable legal fees and expenses incurred in its defense against the PATENT CHALLENGE. In the event that a (1) PATENT CHALLENGE is brought by SUBLICENSEE and (2) COMPANY does not terminate the sublicense in accord with Section 8.2 and (3) such PATENT CHALLENGE is unsuccessful, then COMPANY shall reimburse WHITEHEAD for all reasonable legal fees and expenses incurred in its defense against the PATENT CHALLENGE. The state and federal courts having jurisdiction over Cambridge, Massachusetts, U.S.A., provide the exclusive forum for any PATENT CHALLENGE, and COMPANY submits to and shall contractually obligate SUBLICENSEES to submit to the jurisdiction of such courts and waives any claim that such court lacks jurisdiction over COMPANY or its AFFILIATES or constitutes an inconvenient or improper forum.

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(g) No Multiple Royalties. If the manufacture, use, lease, or sale of any LICENSED PRODUCT or the performance of any LICENSED PROCESS is covered by more than one of the PATENT RIGHTS, multiple royalties will not be due.

(h) Equity.

(1) Initial Grant. COMPANY shall issue a total of 416,667 shares of Common Stock of COMPANY, \$.0001 par value per share, (the "Shares") in the name of WHITEHEAD, M.I.T., and those individuals listed in Appendix C ("Whitehead/M.I.T. Holders"), in the amounts specified in Appendix C. Such issuance shall be recorded on the Stock Transfer Ledger of COMPANY on the EFFECTIVE DATE, and the Shares shall be delivered to WHITEHEAD, M.I.T., and Whitehead/M.I.T. Holders, if any, within [**] days of the EFFECTIVE DATE. In connection with the initial grant of the Shares, WHITEHEAD, M.I.T., and the Whitehead/M.I.T. Holders, if any, shall execute and deliver to the Company an Equity Agreement relating to the issuance of the Shares, substantially in the form attached hereto as Appendix F. COMPANY represents to WHITEHEAD that, as of the EFFECTIVE DATE, the aggregate number of Shares equals Four Percent (4.0%) of the COMPANY'S issued and outstanding Common Stock calculated on a Fully Diluted Basis (as defined below).

(2) Anti-Dilution Protection. COMPANY shall issue additional shares of Common Stock to WHITEHEAD, M.I.T., and each Whitehead/M.I.T. Holder pro rata, such that WHITEHEAD'S and the Whitehead Holders' ownership of outstanding Common Stock shall not fall below Four Percent (4.0%) on a Fully Diluted Basis, as calculated after giving effect to the anti-dilutive issuance. Such issuances will continue

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until and including the raising of a total of [**] Dollars (\$[**]) in cash in exchange for COMPANY'S capital stock (the "Funding Threshold") will be received by COMPANY. Thereafter, no additional shares will be due to WHITEHEAD, M.I.T., or any Whitehead/M.I.T. Holder pursuant to this section.

(3) Participation in Future Private Equity Offerings. After the date of the Funding Threshold, WHITEHEAD and M.I.T. (specifically not including Whitehead/M.I.T. Holders) will have the right to purchase additional shares of the COMPANY'S Common Stock in any private offering by the COMPANY of such capital stock in exchange for cash, to maintain its pro rata ownership as calculated immediately prior to such offering on a Fully Diluted Basis, pursuant to the terms and conditions at least as favorable as those granted to the other offerees. All rights granted pursuant to this Section 4.1(h)(3) will terminate immediately prior to a firm commitment underwritten public offering of the COMPANY'S Common Stock resulting in gross proceeds to the COMPANY of at least [**] Dollars (\$[**]). The right of participation set forth in this Section 4.1(h)(3) shall not be applicable to the following issuances: (a) provided that said issuances are treated as "Exempted Securities" as defined in Section 4.4.1(d)(i)-(vi) of Part B of Article Fourth of the Company's Certificate of Incorporation, as amended from time to time (for purposes hereof the "Exempted Issuances"):

- (i) shares of Capital Stock or a Convertible Instrument issued as a dividend of distribution on the shares of Series A Preferred Stock of the Company;

- (ii) shares of Capital Stock or a Convertible Instrument issued by reason of a dividend, stock split, split-up or other distribution on shares of Capital Stock of the Company;
- (iii) shares of Capital Stock or a Convertible Instrument issued to employees or directors of, or consultants or advisors to, the Company or any of its subsidiaries pursuant to a plan, agreement or arrangement approved by the Board of Directors of the Company;
- (iv) shares of Capital Stock or a Convertible Instrument actually issued upon the exercise of a Convertible Instrument actually issued upon the conversion or exchange of a Convertible Instrument, in each case provided such issuance is pursuant to the terms of such Convertible Instrument;
- (v) shares of Capital Stock or a Convertible Instrument issued to banks, equipment lessors or other financial institutions, or to real property lessors, pursuant to a debt financing, equipment leasing or real property leasing transaction;
- (vi) shares of Capital Stock or a Convertible Instrument issued in connection with sponsored research, collaboration, technology license, development, OEM, marketing or other similar agreements or strategic partnerships; and (b) the issuance of shares of Series A Preferred Stock of the Company.

(4) Adjustments for Punitive Round Financings. After the date of the Funding Threshold (the "Funding Threshold Date"), if COMPANY takes any action that is a Dilutive Issuance (as defined below), then immediately following such Dilutive Issuance, COMPANY shall issue to WHITEHEAD and M.I.T., pro rata based on their shares then outstanding, additional shares of Common Stock such that the Institution Share Number (as defined below) equals the product obtained by multiplying the WHITEHEAD Share Number in effect immediately before the Dilutive Issuance by the Adjustment Fraction defined below. The Institution Share Price in effect immediately after the Dilutive Issuance will be adjusted to equal the result obtained by dividing the Institution Share Price in effect immediately before the Dilutive Issuance by the Adjustment Fraction defined below.

The Adjustment Fraction equals: $(A + C)$ divided by $(A + B)$, where

A = the number of shares of Common Stock issued and outstanding on a Fully Diluted Basis immediately prior to the Dilutive Issuance.

B = the number of shares of Common Stock that could be purchased at the Institution Share Price immediately prior to the Dilutive Issuance using the aggregate consideration received by COMPANY in connection with the Dilutive Issuance.

C = the number of shares of Capital Stock issued on a Fully Diluted Basis pursuant to the Dilutive Issuance, or, if a Convertible Instrument is issued in the Dilutive Issuance, the number of shares of Capital Stock issuable on a Fully Diluted Basis if all shares of the Convertible Instrument were converted into the applicable Capital Stock, whether or not then exercisable or convertible.

For the purpose of calculating "C", if the Dilutive Issuance is as described in subpart (III) of the definition of Dilutive Issuance below, then C will be the total number of shares of Capital Stock into which the newly adjusted Convertible Instrument could be exercised or converted, whether or not then exercisable or convertible.

The following definitions will apply to this Section 4.1(h):

"Capital Stock" will mean any form of COMPANY'S capital stock.

"Convertible Instrument" will mean any instrument issued by COMPANY that is convertible into, or may be exercised in exchange for, any Capital Stock.

"Dilutive Issuance" will mean any issuance of Capital Stock or any Convertible Instrument by COMPANY where such issuance results in (I) the price per share of COMPANY'S Common Stock being reduced to less than the then current WHITEHEAD Share Price (as defined in this subsection); (II) the price per share of any Convertible Instrument being reduced to less than the price of the same series or type of Convertible Instrument in the most recently preceding offering and sale of such Convertible Instrument; or (III) the conversion ratio of any Convertible Instrument changing such that each previously issued share of such Convertible Instrument becomes convertible into a greater number of shares of the applicable Capital Stock; provided, however, that any adjustment in conversion ratio pursuant to the anti-dilution provisions of the Company's Certificate of Incorporation shall not be a Dilutive Issuance for the purposes hereof, and provided further that Exempted Issuances shall not be Dilutive Issuances for the purposes hereof.

"Fair Market Value" of a share of Common Stock will be the highest price per share that the COMPANY could obtain from a willing buyer (not a current employee or

director) for shares of Common Stock sold by the COMPANY, from authorized but unissued shares, as determined in good faith by the Board of Directors of the COMPANY, unless the COMPANY will become subject to a merger, acquisition, or other consolidation pursuant to which the COMPANY is not the surviving party, in which case the current fair market value of a share of Common Stock will be deemed to be the value received by the holders of the COMPANY'S Common Stock for each share of Common Stock pursuant to the COMPANY'S acquisition. For the purposes of determining Fair Market Value of Common Stock on the Funding Threshold Date, a valuation that meets the requirements of Section 409A of the Internal Revenue Code, as amended, and the regulations promulgated thereunder, and adopted by the Board of Directors of the Company shall be conclusive evidence of a good faith determination by the Board of Directors of such value.

"Fully Diluted Basis" will mean the total number of issued and outstanding shares of the COMPANY'S Common Stock calculated to include conversion of all issued and outstanding securities convertible into Common Stock, the exercise of all then outstanding options and warrants to purchase shares of Common Stock, whether or not then exercisable, and the conversion or exercise of all rights to purchase or acquire Common Stock, whether or not then convertible or exercisable.

"Institution Share Number" will mean the number of shares of COMPANY'S Common Stock that WHITEHEAD and M.I.T. owns on the date of the Dilutive Issuance, as adjusted from time to time pursuant to this section. Notwithstanding the foregoing, any shares of Common Stock acquired by WHITEHEAD or M.I.T. pursuant to Section 4.1(h)(3) will not be included in the Institution Share Number.

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"Institution Share Price" will mean the value per share of the shares of Common Stock included in the Institution Share Number, as adjusted from time to time pursuant to this section. For purposes of this section, the initial Institution Share Price to be used in an adjustment resulting from the first Dilutive Issuance to occur after the Funding Threshold Date will be the Fair Market Value per share of the Common Stock of the COMPANY effective on the Funding Threshold Date.

Equitable adjustment shall be made to the foregoing provisions of this subsection (4) to account for any stock splits, stock dividends, stock combinations or similar corporate events.

All rights granted pursuant to this Section 4.1(h)(4) will terminate immediately prior to a firm commitment underwritten public offering of the COMPANY'S Common Stock resulting in gross proceeds to the COMPANY of at least [**] Dollars (\$[**]).

(5) WHITEHEAD hereby agrees that as a condition to the issuance of the shares contemplated by this Section 4.1 to WHITEHEAD and M.I.T., WHITEHEAD and M.I.T. will become a party as a "Key Holder" to that certain Right of First Refusal and Co-Sale Agreement and that certain Voting Agreement, by and between the COMPANY and the other parties thereto, forms of which have been furnished to WHITEHEAD, with such changes thereto as may be agreed by the other Key Holders prior to the execution thereof.

Notwithstanding anything to the contrary herein, the provisions set forth in Sections 4.1(h)(3) and 4.1(h)(4) shall be of no further force and effect and will terminate without any further action by the COMPANY following a Deemed Liquidation Event, as

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defined in Section 2.3.1 of Part B of Article Fourth of the COMPANY'S Certificate of Incorporation, as amended from time to time.

4.2 Payments.

(a) Method of Payment. All payments under this Agreement should be made payable to "Whitehead Institute for Biomedical Research" and sent to WHITEHEAD'S address identified in Section 15.1. Each payment should reference this Agreement (WHITEHEAD Reference: [**]) and identify the obligation under this Agreement that the payment satisfies.

(b) Payments in U.S. Dollars. All payments due under this Agreement will be drawn on a United States bank and will be payable in United States dollars. Conversion of foreign currency to U.S. dollars will be made at the conversion rate existing in the United States (as reported in the *Wall Street Journal*) on the last working day of the calendar quarter of the applicable REPORTING PERIOD. Such payments will be without deduction of exchange, collection, or other charges, and, specifically, without deduction of withholding or similar taxes or other government imposed fees or taxes, except as permitted in the definition of NET SALES.

(c) Late Payments. Any payments by COMPANY that are not paid on or before the date such payments are due under this Agreement will bear interest, to the extent permitted by law, at two percentage points above the Prime Rate of interest as reported in the *Wall Street Journal* on the date payment is due.

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5. REPORTS AND RECORD KEEPING

5.1 Frequency of Reports.

(a) Before First Commercial Sale. Prior to the first commercial sale of any LICENSED PRODUCT or IDENTIFIED PRODUCT or first commercial performance of any LICENSED PROCESS, COMPANY shall deliver reports to WHITEHEAD annually, within [**] days of the end of each calendar year, containing information concerning the immediately preceding calendar year, as further described in Section 5.2. COMPANY shall include a description of its compliance with COMPANY'S diligence obligations in accord with Article 3.

(b) Upon First Commercial Sale. COMPANY shall report to WHITEHEAD the date of first commercial sale of each LICENSED PRODUCT and each IDENTIFIED PRODUCT and the date of first commercial performance of a LICENSED PROCESS within [**] days of occurrence in each country.

(c) After First Commercial Sale. After the first commercial sale of a LICENSED PRODUCT, the first commercial sale of an IDENTIFIED PRODUCT, and the first commercial performance of a LICENSED PROCESS, COMPANY shall deliver reports to WHITEHEAD within [**] days of the end of each REPORTING PERIOD, containing information concerning the immediately preceding REPORTING PERIOD, as further described in Section 5.2.

5.2 Content of Reports and Payments. Each report delivered by COMPANY to WHITEHEAD will contain at least the following information for the immediately preceding REPORTING PERIOD:

- (i) the number of LICENSED PRODUCTS and IDENTIFIED PRODUCTS sold, leased or distributed by COMPANY,

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AFFILIATES, SUBLICENSEES, and CORPORATE PARTNERS to independent third parties in each country, and, if applicable, the number of LICENSED PRODUCTS used by COMPANY, AFFILIATES, SUBLICENSEES, and CORPORATE PARTNERS in the performance of LICENSED PROCESSES in each country;

- (ii) a description of LICENSED PROCESSES performed by COMPANY, AFFILIATES, and SUBLICENSEES in each country as may be pertinent to a royalty accounting hereunder;
- (iii) the gross price charged by COMPANY, AFFILIATES, SUBLICENSEES, and CORPORATE PARTNERS for each LICENSED PRODUCT and each IDENTIFIED PRODUCT, and, if applicable, the gross price charged for each LICENSED PRODUCT used in the performance of LICENSED PROCESSES in each country; and the gross price charged for each LICENSED PROCESS performed by COMPANY, AFFILIATES, and SUBLICENSEES in each country;
- (iv) calculation of NET SALES for the applicable REPORTING PERIOD in each country, including a listing of applicable deductions;
- (v) total royalty payable on NET SALES in U.S. dollars, together with the exchange rates used for conversion;

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- (vi) calculation of SERVICE INCOME for the applicable REPORTING PERIOD in each country, including a listing of applicable deductions;
- (vii) subject to the outcome of the negotiation contemplated in Section 4.1(d)(iii), total royalty payable on SERVICE INCOME in U.S. dollars, together with the exchange rates used for conversion;
- (viii) the amount of SUBLICENSE INCOME received by COMPANY from each SUBLICENSEE and each CORPORATE PARTNER and the amount deliverable to WHITEHEAD from such SUBLICENSE INCOME, including an itemized breakdown of the sources of income comprising the SUBLICENSE INCOME; and
- (ix) the number of sublicense agreements and corporate partner agreements entered into for the PATENT RIGHTS, LICENSED PRODUCTS, IDENTIFIED PRODUCTS, and/or LICENSED PROCESSES.

If no amounts are due for any REPORTING PERIOD, the report will so state.

5.3 Financial Statements. On or before the [**] day following the close of COMPANY'S fiscal year, COMPANY shall provide WHITEHEAD with COMPANY'S financial statements for the preceding fiscal year including, at a minimum, a balance sheet and an income statement, certified by COMPANY'S treasurer or chief financial officer or by an independent auditor. During any time period in which COMPANY is required to make filings of its annual financial information with the U.S. Securities and Exchange Commission, and such

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reports are available via a publicly accessible website, COMPANY shall not be required to actually deliver copies of the foregoing reports to WHITEHEAD, provided, however, that COMPANY shall provide such financial statements to WHITEHEAD upon WHITEHEAD'S request.

5.4 Record keeping. COMPANY shall maintain, and shall cause its AFFILIATES, SUBLICENSEES, and CORPORATE PARTNERS to maintain, complete and accurate records relating to the rights and obligations under this Agreement and any amounts payable to WHITEHEAD in relation to this Agreement, which records will contain sufficient information to permit WHITEHEAD to confirm the accuracy of any reports delivered to WHITEHEAD and compliance in other respects with this Agreement. The relevant party shall retain such records for at least [**] years following the end of the calendar year to which they pertain, during which time WHITEHEAD or WHITEHEAD'S appointed agents, will have the right, at WHITEHEAD'S expense, to inspect such records during normal business hours to verify any reports and payments made or compliance in other respects under this Agreement. In the event that

any audit performed under this Section reveals an underpayment in excess of five percent (5%), COMPANY shall bear the full cost of such audit and shall remit any amounts due to WHITEHEAD within [**] days of receiving notice thereof from WHITEHEAD.

6. PATENT PROSECUTION

6.1 Responsibility for PATENT RIGHTS.

- (a) WHITEHEAD shall prepare, file, prosecute, and maintain all of the PATENT RIGHTS.

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(b) During the EXCLUSIVE PERIOD: COMPANY will have reasonable opportunities to advise WHITEHEAD and shall cooperate with WHITEHEAD in such filing, prosecution and maintenance. WHITEHEAD shall consult with COMPANY on the prosecution of the PATENT RIGHTS, shall provide the COMPANY with copies of any correspondence sent to or received from the applicable patent office regarding any PATENT RIGHTS, and shall provide the COMPANY with a reasonable period of time prior to filing any patent applications, office actions, or related correspondence with the applicable patent office regarding any PATENT RIGHTS to review drafts of such materials. The COMPANY'S suggestions and requests regarding patent prosecution will be reasonably considered and included by WHITEHEAD except for those specific suggestions or requests that WHITEHEAD, in its sole discretion, reasonably concludes in good faith would, if implemented, decrease the value of the PATENT RIGHTS, evaluated as a whole. WHITEHEAD shall not abandon, or otherwise elect to forego its rights in, any PATENT RIGHTS without COMPANY'S prior written consent, which consent shall not be unreasonably withheld. This Section 6.1(b) will automatically terminate at the end of the EXCLUSIVE PERIOD.

6.2 International (non-United States) Filings. Appendix B is a list of countries in which patent applications corresponding to the United States patent applications listed in Appendix A will be filed, prosecuted, and maintained. Appendix B may be amended by mutual agreement of COMPANY and WHITEHEAD. WHITEHEAD shall not unreasonably withhold, condition, or delay its agreement to amend Appendix B to include additional countries that are proposed by COMPANY or to remove countries.

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6.3 Payment of Expenses. Payment of all fees and costs, including attorneys' fees, relating to the filing, prosecution, and maintenance of the PATENT RIGHTS will be the responsibility of COMPANY, whether such amounts were incurred before or after the EFFECTIVE DATE. As of August 10, 2010, WHITEHEAD and M.I.T. have incurred approximately [**] Dollars (\$[**]) for such patent-related fees and costs. COMPANY shall reimburse all amounts due pursuant to this Section 6.3 within [**] days of invoicing; late payments will accrue interest pursuant to Section 4.2(c). In all instances, WHITEHEAD shall pay the fees prescribed for large entities to the United States Patent and Trademark Office. COMPANY may elect by [**]-day advance written notice to WHITEHEAD, on a patent right by patent right and country-by-country basis, to cease paying future fees and costs relating to the filing, prosecution, and maintenance of a particular patent right in a particular country. Upon such election, COMPANY shall no longer have any rights hereunder with respect to such patent right in such country.

7. INFRINGEMENT

7.1 Notification of Infringement. Each Party agrees to provide written notice to the other Parties promptly after becoming aware of any infringement of the PATENT RIGHTS.

7.2 Right to Prosecute Infringements.

(a) COMPANY Right to Prosecute. So long as COMPANY remains the exclusive licensee of the PATENT RIGHTS in the FIELD in the TERRITORY, COMPANY, to the extent permitted by law, will have the right, under its own control and at its own expense, to prosecute any third-party infringement of the PATENT RIGHTS in the FIELD in the TERRITORY, subject to Sections 7.4 and 7.5. If required by law,

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WHITEHEAD and M.I.T. shall permit any action under this Section to be brought in their name, including being joined as a party-plaintiff, provided that COMPANY shall hold WHITEHEAD and M.I.T. harmless from, and indemnify WHITEHEAD and M.I.T. against any costs, expenses, or liability that WHITEHEAD and M.I.T. incur in connection with such action.

Prior to commencing any such action, COMPANY shall consult with WHITEHEAD and M.I.T. and shall consider the views of WHITEHEAD and M.I.T. regarding the advisability of the proposed action and its effect on the public interest. COMPANY shall not enter into any settlement, consent judgment, or other voluntary final disposition of any infringement action under this Section without the prior written consent of WHITEHEAD and M.I.T.

(b) WHITEHEAD Right to Prosecute. In the event that COMPANY is unsuccessful in persuading the alleged infringer to desist or fails to have initiated an infringement action within a reasonable time after COMPANY first becomes aware of the basis for such action, WHITEHEAD and M.I.T. will have the right, at their sole discretion, to prosecute such infringement under its sole control and at its sole expense, and any recovery obtained will belong to WHITEHEAD and M.I.T.

7.3 Declaratory Judgment Actions. In the event that a PATENT CHALLENGE is brought against WHITEHEAD or M.I.T. or COMPANY by a third party, WHITEHEAD and M.I.T., at their sole discretion, will have the right within [**] days after commencement of such action to take over the sole defense of the action at its own expense; provided, however, that the foregoing right shall not apply to a PATENT CHALLENGE that is brought as a counterclaim in, or otherwise in connection with, an infringement suit being brought by COMPANY pursuant to

Section 7.2. If WHITEHEAD and M.I.T. do not exercise this right, then COMPANY may take over the sole defense of the action at COMPANY'S sole expense, subject to Sections 7.4 and 7.5.

7.4 **Offsets.** COMPANY may offset a total of [**] percent ([**]%) of any expenses incurred under Sections 7.2 and 7.3 against any payments due to WHITEHEAD under Article 4, provided that in no event will such payments under Article 4, when aggregated with any other offsets and credits allowed under this Agreement, be reduced by more than [**] percent ([**]%) in any REPORTING PERIOD.

7.5 **Recovery.** Any recovery obtained in an action brought by COMPANY under Sections 7.2 or 7.3 will be distributed as follows:

- (i) each Party will be reimbursed for any expenses incurred in the action (including the amount of any royalty or other payments withheld from WHITEHEAD as described in Section 7.4);
- (ii) as to ordinary damages, COMPANY will receive an amount equal to its lost profits or a reasonable royalty on the infringing sales, or whichever measure of damages the court will have applied, and COMPANY shall pay to WHITEHEAD based upon such amount a reasonable approximation of the royalties and other amounts that COMPANY would have paid to WHITEHEAD if COMPANY had sold the infringing products, processes, and services rather than the infringer including without limitation milestone payments; and

- (iii) as to special or punitive damages, the WHITEHEAD and COMPANY will share equally in any award.

7.6 **Cooperation.** Each Party agrees to cooperate in any action under this Article which is controlled by the other Party, provided that the controlling Party reimburses the cooperating Parties promptly for any costs and expenses actually incurred by the cooperating Parties in connection with providing such assistance.

7.7 **Right to Sublicense.** So long as COMPANY remains the exclusive licensee of the PATENT RIGHTS in the FIELD in the TERRITORY, COMPANY will have the sole right to sublicense any alleged infringer in the FIELD in the TERRITORY for future use of the PATENT RIGHTS in accordance with the terms and conditions of this Agreement relating to sublicenses. Any upfront fees or other revenues to COMPANY pursuant to such sublicense will be treated as set forth in Article 4.

8. PATENT CHALLENGE

8.1 In the event that COMPANY or AFFILIATES brings a PATENT CHALLENGE against WHITEHEAD, or COMPANY or AFFILIATES assist another party in bringing a PATENT CHALLENGE against WHITEHEAD and M.I.T. (except as required under a court order or subpoena), WHITEHEAD and M.I.T., in their sole discretion, may terminate this Agreement immediately upon written notice to COMPANY without any liability and without any opportunity to cure by COMPANY, as provided in Section 13.4(a). COMPANY will have no right to recoup any royalties paid or other payments made during the period of challenge as provided in Section 4.1(f).

8.2 In the event that SUBLICENSEE brings a PATENT CHALLENGE or assists another party in bringing a PATENT CHALLENGE against WHITEHEAD and M.I.T. (except as required under a court order or subpoena), COMPANY agrees that it will immediately terminate such sublicense upon notice by WHITEHEAD, as provided in Section 13.4(b). COMPANY will have no right to recoup any royalties paid or other payments made during the period of challenge as provided in Section 4.1(f).

8.3 In the event that (i) COMPANY or AFFILIATES brings a PATENT CHALLENGE or assists another party in bringing a PATENT CHALLENGE against WHITEHEAD and M.I.T. (except as required under a court order or subpoena); or (ii) COMPANY fails to terminate a sublicense to a SUBLICENSEE as required by Section 8.2, and in either case WHITEHEAD and M.I.T. do not terminate this Agreement, then the following shall apply:

- (a) WHITEHEAD and M.I.T., in their sole discretion, may choose at any time following the initiation of such PATENT CHALLENGE to grant one or more licenses to third parties under the PATENT RIGHTS, including without limitation, to develop, make, have made, use, sell, offer to sell, lease, and import LICENSED PRODUCTS in the FIELD in the TERRITORY; and to develop and perform LICENSED PROCESSES in the FIELD in the TERRITORY.
- (b) The EXCLUSIVE PERIOD under Section 2.2 will immediately terminate;
- (c) COMPANY and its AFFILIATES shall immediately destroy all TANGIBLE PROPERTY, and COMPANY shall confirm such destruction in writing to

(d) COMPANY will have no right to recoup any royalties paid or other payments made during the period of challenge as provided in Section 4.1(f); and

(e) COMPANY shall reimburse WHITEHEAD and M.I.T. for all legal fees and expenses incurred in its defense against the PATENT CHALLENGE.

8.4 The state and federal courts having jurisdiction over Cambridge, Massachusetts, U.S.A., provide the exclusive forum for any PATENT CHALLENGE, and COMPANY submits to and shall contractually obligate SUBLICENSEES to submit to the jurisdiction of such courts and waives any claim that such court lacks jurisdiction over COMPANY or AFFILIATES or constitutes an inconvenient or improper forum.

9. INDEMNIFICATION AND INSURANCE

9.1 Indemnification.

(a) **Indemnity.** COMPANY shall indemnify, defend, and hold harmless WHITEHEAD, M.I.T., and their trustees, officers, faculty, students, employees, and agents and their respective successors, heirs and assigns (the "Indemnitees"), against any liability, damage, loss, or expense (including reasonable attorneys' fees and expenses) incurred by or imposed upon any of the Indemnitees in connection with any claims, suits, investigations, actions, demands or judgments by third parties (collectively, "Losses"), to the extent such Losses arise out of or relate to the exercise of any rights granted to COMPANY under this Agreement or any breach of this Agreement by COMPANY.

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Notwithstanding the foregoing, COMPANY shall have no obligations under this Section 9.1(a) to the extent any Loss arises out of or is related to any gross negligence or willful misconduct on the part of the Indemnitees.

(b) **Procedures.** The Indemnitees agree to provide COMPANY with prompt written notice of any claim, suit, action, demand, or judgment for which indemnification is sought under this Agreement. COMPANY agrees, at its own expense, to provide attorneys reasonably acceptable to WHITEHEAD and M.I.T. to defend against any such claim. The Indemnitees shall cooperate fully with COMPANY in such defense and will permit COMPANY to conduct and control such defense and the disposition of such claim, suit, or action (including all decisions relative to litigation, appeal, and settlement); provided, however, that any Indemnitee will have the right to retain its own counsel, at the expense of COMPANY, if representation of such Indemnitee by the counsel retained by COMPANY would be inappropriate because of actual or potential differences in the interests of such Indemnitee and any other party represented by such counsel. COMPANY agrees to keep WHITEHEAD and M.I.T. informed of the progress in the defense and disposition of such claim and to consult with WHITEHEAD and M.I.T. with regard to any proposed settlement.

9.2 **Insurance.** COMPANY shall obtain and carry in full force and effect commercial general liability insurance, including product liability and errors and omissions insurance which will protect COMPANY and Indemnitees with respect to events covered by Section 9.1(a) above. Such insurance will:

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- (i) be issued by an insurer licensed to practice in the Commonwealth of Massachusetts or an insurer pre-approved by WHITEHEAD and M.I.T., such approval not to be unreasonably withheld;
- (ii) list WHITEHEAD and M.I.T. as additional insureds thereunder
- (iii) be endorsed to include product liability coverage; and
- (iv) require [**] days written notice to be given to WHITEHEAD and M.I.T. prior to any cancellation or material change thereof.

The limits of such insurance will not be less than [**] Dollars (\$[**]) per occurrence with an aggregate of [**] Dollars (\$[**]) for bodily injury including death; [**] Dollars (\$[**]) per occurrence with an aggregate of [**] Dollars (\$[**]) for property damage; and [**] Dollars (\$[**]) per occurrence with an aggregate of [**] Dollars (\$[**]) for errors and omissions.

In the alternative, COMPANY may self-insure subject to the prior approval of WHITEHEAD and M.I.T. COMPANY shall provide WHITEHEAD and M.I.T. with Certificates of Insurance evidencing compliance with this Section, at the reasonable request of WHITEHEAD and/or M.I.T. COMPANY shall continue to maintain such insurance or self-insurance after the expiration or termination of this Agreement during any period in which COMPANY or AFFILIATE or SUBLICENSEE continues (i) to make, use, or sell a product that was a LICENSED PRODUCT under this Agreement or (ii) to perform a LICENSED PROCESS under this Agreement, and thereafter for a period of [**] years.

10. NO REPRESENTATIONS AND NO WARRANTIES

EXCEPT AS OTHERWISE EXPRESSLY SET FORTH IN THIS AGREEMENT, WHITEHEAD AND M.I.T. MAKE NO REPRESENTATIONS OR WARRANTIES OF ANY

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KIND CONCERNING THE PATENT RIGHTS OR TANGIBLE PROPERTY, AND HEREBY DISCLAIM ALL REPRESENTATIONS AND WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION WARRANTIES OF MERCHANTABILITY, FITNESS FOR A

PARTICULAR PURPOSE, NONINFRINGEMENT OF INTELLECTUAL PROPERTY RIGHTS OF WHITEHEAD, M.I.T., OR THIRD PARTIES, VALIDITY, ENFORCEABILITY AND SCOPE OF PATENT RIGHTS, WHETHER ISSUED OR PENDING, AND THE ABSENCE OF LATENT OR OTHER DEFECTS, WHETHER OR NOT DISCOVERABLE.

The TANGIBLE PROPERTY is experimental in nature and will be used with prudence and appropriate caution since not all of its characteristics are known.

IN NO EVENT SHALL COMPANY, WHITEHEAD, M.I.T., OR ANY OF THEIR RESPECTIVE TRUSTEES, DIRECTORS, OFFICERS, EMPLOYEES, AND AFFILIATES BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND, INCLUDING ECONOMIC DAMAGES OR INJURY TO PROPERTY AND LOST PROFITS, ARISING OUT OF THIS AGREEMENT, REGARDLESS OF WHETHER SUCH PERSON OR ENTITY SHALL BE ADVISED, SHALL HAVE OTHER REASON TO KNOW, OR IN FACT SHALL KNOW OF THE POSSIBILITY OF THE FOREGOING.

11. ASSIGNMENT

This Agreement is personal to COMPANY and no rights or obligations may be assigned by COMPANY without the prior written consent of WHITEHEAD. The foregoing notwithstanding, COMPANY may assign its rights and obligations under this Agreement to a successor in connection with the merger, consolidation, or sale of all or substantially all of its assets or that portion of its business to which this Agreement relates; provided, however, that this Agreement will immediately terminate if the proposed assignee fails to agree in writing to be

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bound by the terms and conditions of this Agreement on or before the effective date of the assignment.

12. GENERAL COMPLIANCE WITH LAWS

12.1 Compliance with Laws. COMPANY shall use reasonable commercial efforts to comply with all commercially material local, state, federal, and international laws and regulations relating to the development, manufacture, use, and sale of LICENSED PRODUCTS and LICENSED PROCESSES.

12.2 Export Control. COMPANY and AFFILIATES and SUBLICENSEES shall comply with all United States laws and regulations controlling the export of certain commodities and technical data, including without limitation all Export Administration Regulations of the United States Department of Commerce. Among other things, these laws and regulations prohibit or require a license for the export of certain types of commodities and technical data to specified countries. COMPANY hereby gives written assurance that it will comply with, and will cause its AFFILIATES to comply with (and will contractually obligate its SUBLICENSEES to comply with), all United States export control laws and regulations, that it bears sole responsibility for any violation of such laws and regulations by itself or its AFFILIATES or SUBLICENSEES, and that it will indemnify, defend, and hold WHITEHEAD and M.I.T. harmless (in accordance with Section 9.1) for the consequences of any such violation.

12.3 Non-Use of Name. COMPANY and AFFILIATES and SUBLICENSEES shall not use the name of "Whitehead Institute", "Massachusetts Institute of Technology", "Lincoln Laboratory", or any variation, adaptation, or abbreviation thereof, or of any of their trustees, officers, faculty, students, employees, or agents, or any trademark owned by WHITEHEAD or M.I.T., or any terms of this Agreement in any promotional material or other public

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announcement or disclosure (other than public announcements or disclosures that are required by applicable laws or regulations) without the prior written consent of the relevant party, which consent such party may withhold in its sole discretion. The foregoing notwithstanding, without the consent of WHITEHEAD, COMPANY may make factual statements during the term of this Agreement that COMPANY has a license from WHITEHEAD under one or more of the patents and/or patent applications comprising the PATENT RIGHTS.

12.4 Marking of LICENSED PRODUCTS. To the extent commercially feasible and consistent with prevailing business practices, COMPANY shall mark, and shall cause its AFFILIATES and SUBLICENSEES to mark, all LICENSED PRODUCTS that are manufactured or sold under this Agreement with the number of each issued patent under the PATENT RIGHTS that applies to such LICENSED PRODUCT.

13. TERMINATION

13.1 Voluntary Termination by COMPANY. COMPANY shall have the right to terminate this Agreement, for any reason, (i) upon at least ninety (90) days prior written notice to WHITEHEAD, such notice to state the date at least ninety (90) days in the future upon which termination is to be effective, and (ii) upon payment of all amounts due to WHITEHEAD through such termination effective date.

13.2 Cessation of Business. If COMPANY and all of its SUBLICENSEES cease to carry on all business related to this Agreement for a period in excess of [**] months, WHITEHEAD will have the right to terminate this Agreement immediately upon written notice to COMPANY.

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13.3 Termination for Default.

(a) Nonpayment. In the event COMPANY fails to pay any amounts due and payable to WHITEHEAD hereunder, and fails to make such payments within [**] days after receiving written notice of such failure, WHITEHEAD may terminate this Agreement immediately upon written notice to COMPANY.

(b) **Material Breach.** In the event COMPANY commits a material breach of its obligations under this Agreement, except for breach as described in Section 13.3(a), and fails to cure that breach within [**] days after receiving written notice thereof, WHITEHEAD may terminate this Agreement immediately upon written notice to COMPANY.

13.4 **Termination as a Consequence of PATENT CHALLENGE.**

(a) **By COMPANY.** If COMPANY or any of its AFFILIATES brings a PATENT CHALLENGE against WHITEHEAD or assists others in bringing a PATENT CHALLENGE against WHITEHEAD and M.I.T. (except as required under a court order or subpoena), then WHITEHEAD may immediately terminate this Agreement and/or the license granted hereunder.

(b) **By SUBLICENSEE.** If a SUBLICENSEE brings a PATENT CHALLENGE or assists another party in bringing a PATENT CHALLENGE against WHITEHEAD and M.I.T. (except as required under a court order or subpoena), then WHITEHEAD may send a written demand to COMPANY to terminate such sublicense. If COMPANY fails to so terminate such sublicense within [**] days after WHITEHEAD's demand, WHITEHEAD may immediately terminate this Agreement

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and/or the license granted hereunder, unless SUBLICENSEE ceases such PATENT CHALLENGE by the end of such [**] day period.

13.5 **Effect of Termination.**

(a) **Survival.** The following provisions shall survive the expiration or termination of this Agreement: Articles 1 (Definitions), 9 (Indemnification and Insurance), 10 (No Representations and No Warranties), 14 (Dispute Resolution) and 15 (Miscellaneous), and Sections 2.3(b) (Survival of Sublicense Agreement), 4.1(c)(2) (Milestone Payments for IDENTIFIED PRODUCTS), 4.1(d)(ii) (Running Royalties for IDENTIFIED PRODUCTS), 4.1(h) (Equity), 5.2 (obligation to provide final report and payment), 5.4 (Record Keeping), 12.1 (Compliance with Laws), 12.2 (Export Control) and 13.5 (Effect of Termination).

(b) **Inventory.** Upon the early termination of this Agreement, COMPANY and its AFFILIATES and SUBLICENSEES may complete and sell any work-in-progress and inventory of LICENSED PRODUCTS that exist as of the effective date of termination, provided that:

- (i) COMPANY pays WHITEHEAD the applicable running royalty or other amounts due on such sales of LICENSED PRODUCTS in accordance with the terms and conditions of this Agreement; and
- (ii) COMPANY and its AFFILIATES and SUBLICENSEES shall complete and sell all work-in-progress and inventory of

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LICENSED PRODUCTS within [**] months after the effective date of termination.

(c) **Pre-termination Obligations.** In no event will termination of this Agreement release COMPANY, AFFILIATES, or SUBLICENSEES from the obligation to pay any amounts that became due on or before the effective date of termination.

14. DISPUTE RESOLUTION

14.1 **Mandatory Procedures.** The Parties agree that any dispute arising out of or relating to this Agreement will be resolved solely by means of the procedures set forth in this Article, and that such procedures constitute legally binding obligations that are an essential provision of this Agreement. If any Party fails to observe the procedures of this Article, as may be modified by their written agreement, the other Parties may bring an action for specific performance of these procedures in any court of competent jurisdiction.

14.2 **Equitable Remedies.** Although the procedures specified in this Article are the sole and exclusive procedures for the resolution of disputes arising out of or relating to this Agreement, any Party may seek a preliminary injunction or other provisional equitable relief if, in its reasonable judgment, such action is necessary to avoid irreparable harm to itself or to preserve its rights under this Agreement.

14.3 **Dispute Resolution Procedures.**

(a) **Mediation.** In the event any dispute arising out of or relating to this Agreement remains unresolved within [**] days from the date the affected Party informed the other Parties of such dispute, any Party may initiate mediation upon written

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notice to the other Party ("Notice Date"), whereupon all Parties shall be obligated to engage in a mediation proceeding under the then current Center for Public Resources ("CPR") Model Procedure for Mediation of Business Disputes (<http://www.cpradr.org>), except that specific provisions of this Article shall override inconsistent provisions of the CPR Model Procedure. The mediator will be selected from the CPR Panels of Neutrals. If the Parties cannot agree upon the selection of a mediator within [**] business days after the Notice Date, then upon the request of any Party, the CPR shall appoint the mediator. The Parties shall attempt to resolve the dispute through mediation until the first of the following occurs:

- (i) the Parties reach a written settlement;
- (ii) the mediator notifies the parties in writing that they have reached an impasse;

- (iii) the Parties agree in writing that they have reached an impasse; or
- (iv) the Parties have not reached a settlement within [**] days after the Notice Date.

(b) Trial Without Jury. If the Parties fail to resolve the dispute through mediation, or if no Party elects to initiate mediation, each Party will have the right to pursue any other remedies legally available to resolve the dispute, provided, however, that the Parties expressly waive any right to a jury trial in any legal proceeding under this Article.

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14.4 Performance to Continue. Each Party shall continue to perform its undisputed obligations under this Agreement pending final resolution of any dispute arising out of or relating to this Agreement; provided, however, that a Party may suspend performance of its undisputed obligations during any period in which any other Party fails or refuses to perform its undisputed obligations. Nothing in this Article is intended to relieve COMPANY from its obligation to make undisputed payments pursuant to Articles 4 and 6 of this Agreement.

14.5 Statute of Limitations. The Parties agree that all applicable statutes of limitation and time-based defenses (such as estoppel and laches) will be tolled while the procedures set forth in Section 14.3(a) are pending. The Parties shall cooperate in taking any actions necessary to achieve this result.

15. MISCELLANEOUS

15.1 Notice. Any notices required or permitted under this Agreement will be in writing, will specifically refer to this Agreement, and will be sent by hand, recognized national overnight courier, confirmed facsimile transmission, confirmed electronic mail, or registered or certified mail, postage prepaid, return receipt requested, to the following addresses or facsimile numbers of the Parties:

If to WHITEHEAD:
Whitehead Institute for Biomedical Research
Nine Cambridge Center
Cambridge, MA 02142
Attention: Intellectual Property Office
Tel: 617-258-5104
Fax: 617-258-6294

If to M.I.T.:
Massachusetts Institute of Technology
Technology Licensing Office
Room NE18-501

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One Cambridge Center, Kendall Square
Cambridge, MA 02142
Attention: Director
Tel: 617-253-6966
Fax: 617-258-6790

If to COMPANY:
Verastem, Inc.
c/o Longwood Founders Fund
800 Boylston Street, Suite 1555
Boston, MA 02199
Attention: Chief Operating Officer
Tel: 617-351-2590
Fax: 617-351-2640

All notices under this Agreement will be deemed effective upon receipt. A Party may change its contact information immediately upon written notice to the other Parties in the manner provided in this Section.

15.2 Governing Law. This Agreement and all disputes arising out of or related to this Agreement, or the performance, enforcement, breach or termination hereof, and any remedies relating thereto, will be construed, governed, interpreted and applied in accordance with the laws of the Commonwealth of Massachusetts, U.S.A., without regard to conflict of laws principles, except that questions affecting the construction and effect of any patent will be determined by the law of the country in which the patent shall have been granted. The state and federal courts having jurisdiction over Cambridge, Massachusetts, U.S.A., provide the exclusive forum for any PATENT CHALLENGE and/or any court action among the Parties relating to this Agreement. COMPANY submits to and shall contractually obligate SUBLICENSEES to submit to the jurisdiction of such courts and waives any claim that such court lacks jurisdiction over COMPANY or its AFFILIATES or constitutes an inconvenient or improper forum.

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15.3 Force Majeure. No Party will be responsible for delays resulting from causes beyond the reasonable control of such Party, including without limitation fire, explosion, flood, war, strike, or riot, provided that the nonperforming Party uses commercially reasonable efforts to avoid or remove

such causes of nonperformance and continues performance under this Agreement with reasonable dispatch whenever such causes are removed.

15.4 Amendment and Waiver. This Agreement may be amended, supplemented, or otherwise modified only by means of a written instrument signed by all Parties. Any waiver of any rights or failure to act in a specific instance shall relate only to such instance and shall not be construed as an agreement to waive any rights or fail to act in any other instance, whether or not similar.

15.5 Severability. In the event that any provision of this Agreement will be held invalid or unenforceable for any reason, such invalidity or unenforceability will not affect any other provision of this Agreement, and the Parties will negotiate in good faith to modify the Agreement to preserve (to the extent possible) their original intent. If the Parties fail to reach a modified agreement within [**] days after the relevant provision is held invalid or unenforceable, then the dispute will be resolved in accordance with the procedures set forth in Article 14. While the dispute is pending resolution, this Agreement will be construed as if such provision were deleted by agreement of the Parties.

15.6 Binding Effect. This Agreement will be binding upon and inure to the benefit of the Parties and their respective permitted successors and assigns.

15.7 Headings. All headings are for convenience only and will not affect the meaning of any provision of this Agreement.

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15.8 Entire Agreement. This Agreement constitutes the entire agreement among the Parties with respect to its subject matter and supersedes all prior agreements or understandings among the Parties relating to its subject matter.

15.9 Confidentiality. WHITEHEAD and M.I.T. shall use reasonable efforts to maintain in confidence all CONFIDENTIAL INFORMATION (as defined below) of COMPANY and shall use reasonable efforts to not use or disclose such CONFIDENTIAL INFORMATION, except as expressly authorized by this Agreement. "CONFIDENTIAL INFORMATION" shall mean all information and reports labeled "confidential" and due to WHITEHEAD (or, if applicable, M.I.T.) under this Agreement, including without limitation reports due under Article 5 and any terms of sublicense agreements disclosed pursuant to Section 2.4(a). In addition, the terms of this Agreement shall be deemed to be CONFIDENTIAL INFORMATION. The non-disclosure and non-use obligations set forth above shall not apply to any information to the extent that (a) WHITEHEAD or M.I.T. can show by written record that it possessed the information prior to its receipt from COMPANY; (b) the information was, at the time of disclosure, available to the public or became so through no fault of WHITEHEAD or M.I.T.; or (c) the information is subsequently disclosed to WHITEHEAD or M.I.T. free of any obligations of confidentiality by a third party that has the right to disclose it. Notwithstanding any other provisions of this Section 15.9, WHITEHEAD and M.I.T. may disclose CONFIDENTIAL INFORMATION of COMPANY (i) on a need-to-know basis and in connection with the performance of their respective obligations and/or exercise of their respective rights under this Agreement, to its employees, consultants, or agents provided that such individuals or entities are bound by non-disclosure and non-use obligations at least equivalent in scope to those set forth in this Section 15.9; (ii) in confidence to its trustees,

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directors and professional advisors; and (iii) to the extent that such disclosure is required by a court order, or in order to comply with applicable laws or regulations, but provided that WHITEHEAD and M.I.T. will, except where impracticable, give reasonable advance notice to COMPANY of such required disclosure and use efforts to secure, or to assist the other party in securing, a protective order relating to, or confidential treatment of, such information.

[Signatures follow on the next page.]

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IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their duly authorized representatives on the EFFECTIVE DATE.

For WHITEHEAD

For COMPANY:

By: /s/ Martin Mullins

By: /s/ Satish Jindal

Name: Martin A. Mullins

Name: Satish Jindal

Title: Vice President

Title: President

Date: 10/13/2010

Date: 10/14/2010

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APPENDIX A

List of Patent Applications and Patents

[**]

APPENDIX BList of Countries for which PATENT RIGHTS Applications
Will Be Filed; Prosecuted and Maintained

Japan
 China
 Brazil
 Canada
 Mexico
 EPO (Countries will be determined in advance of the deadline to file.)

APPENDIX CInitial Common Stock Distribution to WHITEHEAD and Whitehead Holders

This Appendix C will be completed within thirty (30) days of the EFFECTIVE DATE.

APPENDIX DList of TANGIBLE PROPERTY

[**]

COMPANY acknowledges and agrees that there may be tangible property of interest to the COMPANY that is covered under patent rights that are not subject to this Agreement. WHITEHEAD and COMPANY agree that this list is a preliminary list that may be amended in the future. The provision of TANGIBLE PROPERTY by WHITEHEAD to COMPANY is subject to its reasonable availability and any restrictions imposed on WHITEHEAD by agreements for such materials (such as, without limitation, Material Transfer Agreements, licenses, and other agreements).

APPENDIX ECORPORATE PARTNER AGREEMENT

1. The [Corporate Partner] hereby acknowledges that Whitehead Institute for Biomedical Research (“WHITEHEAD”), having a principal place of business at Nine Cambridge Center, Cambridge, Massachusetts 02142, has licensed certain PATENT RIGHTS and TANGIBLE PROPERTY to Verastem, Inc. (“VERASTEM”), under a License Agreement (the “License”) effective as of [EFFECTIVE DATE], and that they expect to receive from VERASTEM or its AFFILIATES or its SUBLICENSEES one or more IDENTIFIED PRODUCTS or proprietary information with respect to one or more IDENTIFIED PRODUCTS (collectively, the “Transferred Technology”). All terms not otherwise defined herein shall have the same meanings set forth in the License.

2. In consideration of the value of the PATENT RIGHTS and TANGIBLE PROPERTY in developing the Transferred Technology, the [Corporate Partner] agrees to maintain and retain complete and accurate records of sales of IDENTIFIED PRODUCTS and any amounts paid or payable to VERASTEM in relation to such IDENTIFIED PRODUCTS, all in accordance with Article 4 of the License.

3. If the [Corporate Partner] is notified, by WHITEHEAD or VERASTEM or otherwise, that the License has been terminated in accordance with its terms, such termination will not affect the rights of the undersigned to research and develop, make, use and sell IDENTIFIED PRODUCTS; provided, however, that the [Corporate Partner] hereby agrees that from and after the date of such termination the [Corporate Partner] shall have the obligation (a) to pay directly to WHITEHEAD all amounts that, had the License not been terminated, would have been due by VERASTEM pursuant to Article 4 of the License as a result of the activities of [Corporate Partner] with respect to all IDENTIFIED PRODUCTS, including royalties on NET SALES of IDENTIFIED PRODUCTS by [Corporate Partner], and (b) deliver directly to WHITEHEAD all reports otherwise due to VERASTEM pursuant to Section 2 above. All such payments and reports will be subject to the terms and conditions therefor set forth in the License. To the extent that the foregoing constitutes a grant of rights under PATENT RIGHTS or TANGIBLE PROPERTY with respect to the Transferred Technology, such rights will be contingent and, in the event of a failure to make any such payments or any other material breach by the undersigned, terminate upon [**] days notice unless the breach is cured prior to expiration of such period.

APPENDIX F

Form of Equity Agreement

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VERASTEM, INC.

Equity Issuance Agreement

THIS EQUITY ISSUANCE AGREEMENT (the "Agreement") made this [] day of [], by and between Verastem, Inc., a Delaware corporation (the "Company"), and [] ("Purchaser").

WHEREAS, the Company and Purchaser are parties to that certain Exclusive Patent License Agreement and Tangible Property Agreement, dated as of [], 2010 ("License Agreement"), pursuant to which, among other things, the Purchaser has licensed certain patents to the Company;

WHEREAS, as a condition to entering into the License Agreement, the parties have agreed to enter into this Agreement, providing for, among other things, the issuance of [] shares of common stock, \$.0001 par value per share, of the Company to the Purchaser (the "Shares");

NOW THEREFORE, in consideration of the above recitals and the mutual covenants made herein, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Company and the Purchaser agree as follows:

1. Issuance of Shares.

(a) In partial consideration for the patent license granted to the Company by the Purchaser pursuant to the License Agreement, the Company hereby issues the Shares to the Purchaser. The Company shall deliver a stock certificate representing the Shares to the Purchaser within ten (10) days of the date hereof.

(b) The Purchaser represents, warrants and covenants to the Company as follows:

(i) The Purchaser is acquiring the Shares for its own account for investment only, and not with a view to, or for sale in connection with, any distribution of the Shares in violation of the Securities Act of 1933, as amended (the "**Securities Act**"), or any rule or regulation under the Securities Act.

(ii) The Purchaser has had such opportunity as it has deemed adequate to obtain from representatives of the Company such information as is necessary to permit it to evaluate the merits and risks of its investment in the Company.

(iii) The Purchaser has sufficient experience in business, financial and investment matters to be able to evaluate the risks involved in the purchase of the Shares and to make an informed investment decision with respect to such purchase.

(iv) The Purchaser can afford a complete loss of the value of the Shares and is able to bear the economic risk of holding such Shares for an indefinite period.

(v) The Purchaser understands that (i) the Shares have not been registered under the Securities Act and are "restricted securities" within the meaning of Rule 144 under the Securities Act, (ii) the Shares cannot be sold, transferred or otherwise disposed of unless they are subsequently registered under the Securities Act or an exemption from registration is then available; (iii) in any event, the exemption from registration under Rule 144 will not be available for at least six months and even then will not be available unless a public market then exists for the Shares, adequate information concerning the Company is then available to the public, and other terms and conditions of Rule 144 are complied with; and (iv) there is now no registration statement on file with the Securities and Exchange Commission with respect to any stock of the Company and the Company has no obligation or current intention to register the Shares under the Securities Act.

(vi) The Purchaser is an "accredited investor," as defined in the Securities Act.

2. Restrictive Legends.

All certificates representing Shares shall have affixed thereto legends in substantially the following form, in addition to any other legends that may be required under federal or state securities laws:

"The shares represented by this certificate have not been registered under the Securities Act of 1933, as amended, and may not be sold, transferred or otherwise disposed of in the absence of an effective registration statement under such Act or an opinion of counsel satisfactory to the corporation to the effect that such registration is not required."

3. Severability. The invalidity or unenforceability of any provision of this Agreement shall not affect the validity or enforceability of any other provision of this Agreement, and each other provision of this Agreement shall be severable and enforceable to the extent permitted by law.

4. Binding Effect. This Agreement shall be binding upon and inure to the benefit of the Company and the Purchaser and their respective heirs, executors, administrators, legal representatives, successors and assigns. Notwithstanding the foregoing, the Purchaser may not assign, delegate or otherwise transfer any of its rights set forth herein, by operation of law or otherwise, without the prior written consent of the Company.

Confidential Materials omitted and filed separately with the
Securities and Exchange Commission. Asterisks denote omissions.



7 Cambridge Center
Cambridge, MA
T 617-714-7000 F 617-714-8972
www.broadinstitute.org

October 1, 2010

Dr. Satish Jindal
Chief Operating Officer
Verastem, Inc.
c/o Longwood Founders Fund
800 Boylston Street, Suite 1555
Boston, MA 02199

Dear Dr. Jindal,

Pursuant to our discussions regarding research at the Broad Institute, Inc. ("Broad") concerning cancer stem cells, it is our understanding that Verastem, Inc. ("Verastem") has decided to take a license pursuant to the terms of the Exclusive Patent License Agreement (the "License") to the following patent applications filed in MIT Case No. [**] which concern cancer stem cells:

- U.S. Provisional Patent Appl. No. [**];
- U.S. Provisional Appl. No. [**]; and
- [**].

We note that, at the time of this invention, the Broad Institute was managed as a department within MIT, and all inventions made by Broad personnel were assigned to MIT. The Broad therefore has no ownership stake *per se* in this MIT Case. As of July 1, 2009, Broad Institute, Inc. was established as a separate, non-profit research institution; the Agreement which governs our operations states that rights in intellectual property invented or created prior to the launch of the new institution are determined in accordance with the inter-institutional arrangements that existed prior to the launch of the Broad as a separate entity. In the case of MIT Case No. [**], this means that MIT remains an owner of the intellectual property, that the Broad Institute may continue to practice the invention in its research, as it did as an MIT department; however, the right to grant commercial licenses resides with the invention's co-owners, namely MIT and the Whitehead Institute.

We have explained that additional research related to cancer stem cells is ongoing at the Broad and that we anticipate filing additional patent applications relating to cancer stem cells. It is the desire of the Broad that additional intellectual property ("IP") it files regarding cancer stem cells be developed and commercialized to benefit the public. You have stated that it is Verastem's desire to be afforded the opportunity to be the first to review and negotiate a license to any additional IP Broad files regarding cancer stem cells. Broad desires to grant such opportunity to Verastem to encourage Verastem to continue research and development activities regarding cancer stem cells and to consider commercial licensing of further inventions and developments from the Broad regarding cancer stem cells.

The Eli and Edythe L. Broad Institute

A Collaboration of Massachusetts Institute of Technology, Harvard University and the Harvard-Affiliated Hospitals

Therefore, in an effort to meet the goals of both Broad and Verastem, if the License is completed and Verastem has not breached the terms of the License, Broad agrees to give Verastem, subject to any third party rights, the first right to negotiate a license in good faith for any IP filed in the following Broad cases:

- Broad Case No. [**]; and
- Broad Case No. [**].

Should Verastem elect to negotiate a license in good faith to any IP in the above Broad cases, Verastem and Broad will have [**] days from written notice of the availability of such IP for licensing in which to negotiate a license. During such [**] day period Broad will not negotiate with any other party. If Broad and Verastem are unable to negotiate a license within such [**] day period, Broad may then offer the IP for licensing to other parties.

We look forward to continued productive interactions with you and the rest of the Verastem team.

Sincerely

/s/ Gillian Isabelle
Gillian Isabelle
Director, Business Development Office

Verastem, Inc.
 c/o Longwood Founders Fund
 800 Boylston St, Suite 1555
 Boston, MA 02199-8019

July 30th, 2010

Piyush Gupta, Ph.D.
 c/o Whitehead Institute for Biomedical Research
 9 Cambridge Center
 Cambridge, MA 02142

Re: Verastem, Inc. Scientific Advisory Board / Board of Directors

Dear Piyush,

Thank you for agreeing to serve on the Scientific Advisory Board (“SAB”) and Board of Directors (“BOD”) of Verastem, Inc. (the “Company”). We are excited about having you involved with the Company. I am sending this letter to memorialize the terms of the agreement between you and the Company.

Our understanding is as follows:

- You will attend each meeting of the SAB and BOD, it is anticipated that each will meet in-person four times a year. In addition, Consultant will be reasonably available to provide advice to the Company in the Restricted Field, defined below, at such times and places as will be mutually agreed by Company and Consultant (together participation on the SAB / BOD and advice in the Restricted Field will be “Services”). Consultant’s commitment hereunder will not exceed twelve (12) days per year. Consultant is retained to provide advice only and shall not direct or conduct research for or on behalf of Company under this Agreement. It is expressly understood that Consultant has no fiduciary obligation to Company, but instead a contractual one described by the terms of this Agreement. Company acknowledges and agrees that the Services provided by Consultant hereunder are on a part-time basis and will be subject to Consultant’s reasonable availability. You will use your best efforts in rendering services and promoting the best interests of the company.
 - All decisions with respect to use of the Services rendered by Consultant pursuant to this Agreement will be those of the Company, and there will be no liability on the part of Consultant in respect thereof. The parties acknowledge and agree that (i) Whitehead Institute for Biomedical Research (“Whitehead”) and the Massachusetts Institute of Technology (“M.I.T.”) are not parties to this Agreement, which is a private contract between Consultant and Company; and (ii) Whitehead and M.I.T. shall have no obligation or liability under or in connection with this Agreement. Company shall not use the name, logos, trademarks, or depictions of Whitehead or those of M.I.T., or any adaptation thereof, in any promotional, advertising or marketing literature, or in any other way without the prior written consent of the Whitehead or M.I.T. as appropriate.
-
- Notwithstanding any provisions to the contrary, the Company acknowledges and agrees that nothing in this letter or Non-Solicitation, Non-Disclosure, and Proprietary Information Assignment Agreement (defined below) will: (i) affect your obligations to, your services to, or research on behalf of, Whitehead, including, without limitation, your obligations, services, or research in connection with a transfer by Whitehead of materials or intellectual property developed in whole or in part by you, or in connection with research collaborations or (ii) otherwise restrict your research at Whitehead.
 - The Company will reimburse you within thirty (30) days of invoicing for reasonable and necessary expenses which are incurred in connection with your performance of the Services and obligations hereunder and with respect to which you promptly provide to us a detailed expense account and receipts.
 - You will receive one hundred thousand dollars (\$100,000) as an annual retainer, beginning on the Effective Date defined below; provided however that the retainer will be payable in quarterly installments of twenty-five thousand dollars (\$25,000) payable in arrears beginning with the first calendar quarter following a Qualified Financing (as defined below), prorated for any partial quarter. A Qualified Financing (“Qualified Financing”) is defined as when the Company issues equity securities to new investors with total proceeds to the Company of not less than \$5,000,000.
 - You will be offered 1,250,000 Founder shares. In addition, for your services as a member of the BOD you will be offered an additional 300,000 shares of the Company’s common stock as Founder shares. Founder shares shall be subject to vesting as follows: one quarter upon issuance and the remaining shares quarterly over the four years thereafter as long as you remain engaged by the Company, provided however, that if there is a Company change of control, then any unvested shares will immediately vest. The purchase price of all Founder shares will be \$0.0001 per share.
 - You will sign the Company’s Consultant Non-Solicitation, Non-Disclosure, and Proprietary Information Assignment Agreement attached to this letter as Exhibit A. Your engagement under this Agreement will be effective as of the Effective Date specified in Exhibit A.
 - During the Term, you agree to work exclusively with the Company in the field of drug discovery and drug development targeting cancer stem cells (CSC) (the “Restricted Field”) and will not provide any services to or otherwise assist in any way, directly or indirectly, any person or entity engaged in business or operations in the Restricted Field.
 - You represent and warrant that you have no commitments or obligations inconsistent with this agreement. You consent to being named as an advisor or as a member of the SAB / BOD in press releases, offering documents, reports or other documents in printed or electronic form, and any documents filed with the Securities and Exchange Commission. Notwithstanding the foregoing, Company shall not use Consultant’s name or depiction, or any adaptation thereof, in any promotional, advertising or marketing literature, or in any other way without the prior written consent of the Consultant, provided however that in circumstances that do not imply endorsement or promotion of a

product or service, or otherwise misrepresent the terms of this Agreement or Consultant's role, Company may accurately state that Consultant is a consultant to Company and list his professional degrees and titles.

- Either you or the Company can terminate our relationship at any time immediately by giving notice to the other. Upon termination of this Agreement for any reason, Consultant will be entitled to receive such compensation and reimbursement, if any, accrued under the terms of this Agreement, but unpaid, as of the date Consultant ceases work under this Agreement. In addition, unless Consultant terminates the agreement without cause, Consultant will be reimbursed for any non-cancellable obligations and expenditures reasonably made in order to perform the Services that were to occur had cancellation not occurred.
- Indemnification. Company shall indemnify, defend and hold harmless Consultant against any claim, liability, cost, damage, deficiency, loss, expense or obligation of any kind or nature (including without limitation reasonable attorneys' fees and other costs and expenses of litigation) incurred by or imposed upon the Consultant in connection with any claims, suits, actions, demands or judgments arising out of this Agreement and/or Company's use of any report or information provided by Consultant hereunder (including, but not limited to, actions in the form of tort, warranty, or strict liability) except to the extent caused by the gross negligence or willful misconduct of Consultant. This provision will survive the termination of this Agreement for any reason.

If this is your understanding, please sign this letter in the space provided below and return an executed copy to me. Thank you and we look forward to working with you on this exciting venture.

Very truly yours,

Acknowledged and Agreed

/s/ Piyush Gupta
Piyush Gupta, Ph.D.

/s/ Satish Jindal
Satish Jindal, Ph.D
President



Verastem, Inc.
c/o Longwood Founders Fund
800 Boylston St, Suite 1565
Boston, MA 02199-8019

October 18th, 2010

Piyush Gupta, Ph.D.
c/o Whitehead Institute
9 Cambridge Center
Cambridge, MA 02142

Re: Amendment to the Verastem, Inc. Scientific Advisory Board / Board of Directors Letter

Dear Piyush,

Thank you for agreeing to serve on the Scientific Advisory Board and Board of Directors of Verastem, Inc. (the "Company"). I am sending this letter to amend the terms of that certain letter agreement between you and the Company, dated July 30, 2010 (the "Letter Agreement"). The definition of Qualified Financing set forth in the Letter Agreement is hereby deleted in its entirety and replaced with the following:

"Qualified Financing is defined as when the Company issues equity securities to new investors with total proceeds to the Company of not less than \$3,000,000."

This change is effective as of the Effective Date (as defined in the Letter Agreement). Except as expressly set forth herein, the Letter Agreement shall remain in full force and effect. Please indicate your acceptance to the amendment of the Letter Agreement set forth above by signing this letter in the space provided below and returning an executed copy to me.

Sincerely,

/s/ Satish Jindal
Satish Jindal, Ph.D.
President and Chief Operating Officer

Acknowledged and Agreed:

Verastem, Inc.
800 Boylston St, Suite 1555
Boston, MA 02199-8019

August 20th, 2010

Eric Lander, Ph.D
c/o Broad Institute
7 Cambridge Center
Cambridge, MA 02142

Re: Verastem, Inc. Scientific Advisory Board

Dear Eric,

Thank you for agreeing to serve on the Scientific Advisory Board (“SAB”) of Verastem, Inc. (the “Company”). We are excited about having you involved with the Company. I am sending this letter to memorialize the terms of the agreement between you and the Company. It is understood that this agreement requires the approval of the Board of Directors of the Broad Institute. The Company agrees to buyback the founders shares if, for whatever reason, the Board of Directors does not approve this agreement.

Our understanding is as follows:

- The Company acknowledges that (i) you are the President, CEO and Director of the Broad Institute, Inc, a Massachusetts non-profit corporation, Professor of Biology at the Massachusetts Institute of Technology and Professor of Systems Biology at the Harvard Medical School (collectively, the Academic Institutions”) and your primary allegiances are to the Academic Institutions; (ii) you are subject to certain policies of the Academic Institutions, as such policies may be revised from time to time, including among others, policies concerning consulting, conflicts of interest and commitment, intellectual property, and use of Academic Institutions’ names; and (iii) any provision of the agreement that conflicts with such policies shall be superseded by such policies.
- You will provide your expertise and assistance to the Company (the “Consulting Services”, as set forth in the “Consultant Non-Solicitation, Non-Disclosure and Proprietary Information Assignment Agreement”). Consulting Services shall include attendance at meetings of the SAB and being reasonably available to provide advice to the Company. You will use your best efforts in rendering the Consulting Services to the Company, however, the company recognizes and shall give due consideration to your commitments to the Academic Institutions. You will be required to devote no more than four days per year to the Consulting Services, which may be delivered in person, over the telephone or by written correspondence.
- The Company will reimburse you for reasonable and necessary expenses which are incurred in connection with your performance of the services and obligations hereunder

and with respect to which you promptly provide to us a detailed expense account and receipts.

- You will receive seventy five thousand dollars (\$75,000) as an annual retainer, payable in quarterly installments of Eighteen Thousand, Seven Hundred and Fifty Dollars (\$18,750) payable in arrears beginning with the first calendar quarter following a Qualified Financing (as defined below), prorated for any partial quarter. A Qualified Financing (“Qualified Financing”) is defined as when the Company issues equity securities to new investors with total proceeds to the Company of not less than \$3,000,000.
- You will be offered 1,250,000 Founder shares. Founder shares shall be subject to vesting as follows: one quarter upon issuance and the remaining shares quarterly over the four years thereafter as long as you remain engaged by the Company. The purchase price of all Founder shares will be \$0.0001 per share.
- You will sign the Consultant Non-Solicitation, Non-Disclosure, and Proprietary Information Assignment Agreement attached to this letter as Attachment A and made a part of this agreement. Your engagement under this Agreement will be effective as of the Effective Date specified in Attachment A.
- During the Term, you agree to provide Consulting Services to the Company in the field of Cancer Stem Cells (the “Restricted Field”). If, at any time during the term of this agreement, you elect to engage in consulting for another for-profit Company in the Restricted Field that could reasonably be considered to conflict with the terms of this agreement, you agree to promptly notify the Company, in order to discuss appropriate next steps.
- You represent and warrant that, to the best of your knowledge, you have no commitments or obligations inconsistent with this agreement or that would in anyway restrict your activities as a member of the SAB.
- For the avoidance of doubt, the Company acknowledges that (i) you shall not provide access to Academic Institutions’ discoveries or know-how prior to its public disclosure, nor shall the company represent otherwise to any party or to the public; (ii) the Company shall have no access to Academic Institutions’ facilities, nor shall the Company represent otherwise to any party or to the public; (iii) you shall have no obligation to license any Academic Institutions-associated intellectual property whatsoever to the Company, including inventions made by you in the Restricted Field, nor shall the Company represent otherwise to any party or to the public.
- You consent to being named as an advisor or as a member of the SAB in offering documents, press releases and any documents filed with the Securities and Exchange Commission; provided that you will have the right to review and edit any portions of press releases that name you. The Company agrees that it will not represent that it has any relationship with the Broad Institute by virtue of its relationship with you.

-
- Either you or the Company can terminate our relationship at any time immediately by giving notice to the other.
 - The Company acknowledges that you must obtain the approval of the Broad institute Board of Directors with respect to outside consulting.

If this is your understanding, please sign this letter in the space provided below and return an executed copy to me. Thank you and we look forward to working with you on this exciting venture.

Very truly yours,

/s/ Satish Jindal, Ph.D

Satish Jindal, Ph.D
President/COO

Acknowledged and Agreed

/s/ Eric Lander

Eric Lander, Ph.D.

ATTACHMENT A

Verastem, Inc.
 c/o Longwood Founders Fund
 800 Boylston St, Suite 1555
 Boston, MA 02199-8019

July 30th, 2010

Robert Weinberg, Ph.D.
 c/o Whitehead Institute for Biomedical Research
 9 Cambridge Center
 Cambridge, MA 02142

Re: Verastem, Inc. Scientific Advisory Board

Dear Bob,

Thank you for agreeing to serve on the Scientific Advisory Board (“SAB”) of Verastem, Inc. (the “Company”). We are excited about having you involved with the Company. I am sending this letter to memorialize the terms of the agreement between you and the Company.

Our understanding is as follows:

- You will attend each meeting of the SAB, it is anticipated that the SAB will meet in- person four times a year. In addition, Consultant will be reasonably available to provide advice to the Company in the Restricted Field, defined below, at such times and places as will be mutually agreed by Company and Consultant (together participation on the SAB and advice in the Restricted Field will be “Services”). Consultant’s commitment hereunder will not exceed ten (10) days per year. Consultant is retained to provide advice only and shall not direct or conduct research for or on behalf of Company under this Agreement. It is expressly understood that Consultant has no fiduciary obligation to Company, but instead a contractual one described by the terms of this Agreement. Company acknowledges and agrees that the Services provided by Consultant hereunder are on a part-time basis and will be subject to Consultant’s reasonable availability. You will use your best efforts in rendering services and promoting the best interests of the company.
- All decisions with respect to use of the Services rendered by Consultant pursuant to this Agreement will be those of the Company, and there will be no liability on the part of Consultant in respect thereof. The parties acknowledge and agree that (i) Whitehead Institute for Biomedical Research (“Whitehead”) and the Massachusetts Institute of Technology (“M.I.T.”) are not parties to this Agreement, which is a private contract between Consultant and Company; and (ii) Whitehead and M.I.T. shall have no obligation or liability under or in connection with this Agreement. Company shall not use the name, logos, trademarks, or depictions of Whitehead or those of M.I.T., or any adaptation thereof, in any promotional, advertising or

marketing literature, or in any other way without the prior written consent of the Whitehead or M.I.T. as appropriate.

- Notwithstanding any provisions to the contrary, the Company acknowledges and agrees that nothing in this letter or Non-Solicitation, Non-Disclosure, and Proprietary Information Assignment Agreement (defined below) will: (i) affect your obligations to, your services to, or research on behalf of, Whitehead, including, without limitation, your obligations, services, or research in connection with a transfer by Whitehead of materials or intellectual property developed in whole or in part by you, or in connection with research collaborations or (ii) otherwise restrict your research at Whitehead.
- The Company will reimburse you within thirty (30) days of invoicing for reasonable and necessary expenses which are incurred in connection with your performance of the Services and obligations hereunder and with respect to which you promptly provide to us a detailed expense account and receipts.
- You will receive seventy five thousand dollars (\$75,000) as an annual retainer, beginning on the Effective Date defined below; provided however that the retainer will be payable in quarterly installments of Eighteen Thousand, Seven Hundred and Fifty Dollars (\$18,750) payable in arrears beginning with the first calendar quarter following a Qualified Financing (as defined below), prorated for any partial quarter. A Qualified Financing (“Qualified Financing”) is defined as when the Company issues equity securities to new investors with total proceeds to the Company of not less than \$5,000,000.
- You will be offered 1,250,000 Founder shares. Founder shares shall be subject to vesting as follows: one quarter upon issuance and the remaining shares quarterly over the four years thereafter as long as you remain engaged by the Company, provided however, that if there is a Company change of control, then any unvested shares will immediately vest. The purchase price of all Founder shares will be \$0.0001 per share.
- You will sign the Company’s Consultant Non-Solicitation, Non-Disclosure, and Proprietary Information Assignment Agreement attached to this letter as Exhibit A. Your engagement under this Agreement will be effective as of the Effective Date specified in Exhibit A.
- During the Term, you agree to work exclusively with the Company in the field of drug discovery and drug development targeting cancer stem cells (CSC) (the “Restricted Field”) and will not provide any services to or otherwise assist in any way, directly or indirectly, any person or entity engaged in business or operations in the Restricted Field.
- You represent and warrant that you have no commitments or obligations inconsistent with this agreement. You consent to being named as an advisor or as a member of the SAB in press releases, offering documents, reports or other documents in printed or

electronic form, and any documents filed with the Securities and Exchange Commission. Notwithstanding the foregoing, Company shall not use Consultant's name or depiction, or any adaptation thereof, in any promotional, advertising or marketing literature, or in any other way without the prior written consent of the Consultant, provided however that in circumstances that do not imply endorsement or promotion of a product or service, or otherwise misrepresent the terms of this Agreement or Consultant's role, Company may accurately state that Consultant is a consultant to Company and list his professional degrees and titles.

- Either you or the Company can terminate our relationship at any time immediately by giving notice to the other. Upon termination of this Agreement for any reason, Consultant will be entitled to receive such compensation and reimbursement, if any, accrued under the terms of this Agreement, but unpaid, as of the date Consultant ceases work under this Agreement. In addition, unless Consultant terminates the agreement without cause, Consultant will be reimbursed for any non-cancellable obligations and expenditures reasonably made in order to perform the Services that were to occur had cancellation not occurred.
- Indemnification. Company shall indemnify, defend and hold harmless Consultant against any claim, liability, cost, damage, deficiency, loss, expense or obligation of any kind or nature (including without limitation reasonable attorneys' fees and other costs and expenses of litigation) incurred by or imposed upon the Consultant in connection with any claims, suits, actions, demands or judgments arising out of this Agreement and/or Company's use of any report or information provided by Consultant hereunder (including, but not limited to, actions in the form of tort, warranty, or strict liability) except to the extent caused by the gross negligence or willful misconduct of Consultant. This provision will survive the termination of this Agreement for any reason.

If this is your understanding, please sign this letter in the space provided below and return an executed copy to me. Thank you and we look forward to working with you on this exciting venture.

Very truly yours,

Acknowledged and Agreed

/s/Satish Jindal
Satish Jindal, Ph.D
President

/s/Robert Weinberg 9/30/10
Robert Weinberg, Ph.D.



Verastem, Inc.
c/o Longwood Founders Fund
800 Boylston St, Suite 1555
Boston, MA 02199-8019

October 18th, 2010

Robert Weinberg, Ph.D.
c/o Whitehead Institute
9 Cambridge Center
Cambridge, MA 02142

Re: Amendment to the Verastem, Inc. Scientific Advisory Board Letter

Dear Bob,

Thank you for agreeing to serve on the Scientific Advisory Board of Verastem, Inc. (the "Company"). I am sending this letter to amend the terms of that certain letter agreement between you and the Company, dated July 30, 2010 (the "Letter Agreement"). The definition of Qualified Financing set forth in the Letter Agreement is hereby deleted in its entirety and replaced with the following:

"Qualified Financing is defined as when the Company issues equity securities to new investors with total proceeds to the Company of not less than \$3,000,000."

This change is effective as of the Effective Date (as defined in the Letter Agreement). Except as expressly set forth herein, the Letter Agreement shall remain in full force and effect. Please indicate your acceptance to the amendment of the Letter Agreement set forth above by signing this letter in the space provided below and returning an executed copy to me.

Sincerely,

/s/ Satish Jindal
Satish Jindal, Ph.D.

President and Chief Operating Officer

Acknowledged and Agreed:

/s/ Robert Weinberg

Robert Weinberg, Ph.D.

Consent of Independent Registered Public Accounting Firm

We consent to the reference to our firm under the caption "Experts" and to the use of our report dated November 2, 2011, in the Registration Statement (Form S-1) and related Prospectus of Verastem, Inc.

/s/ Ernst & Young LLP

Boston, Massachusetts
November 2, 2011

QuickLinks

[Exhibit 23.1](#)

[Consent of Independent Registered Public Accounting Firm](#)