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As confidentially submitted to the Securities and Exchange Commission on June 20, 2013

Registration No. 333-

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-1
REGISTRATION STATEMENT

Under

The Securities Act of 1933

FATE THERAPEUTICS, INC.

(Exact name of registrant as specified in its charter)

Delaware	2836	65-1311552
(State or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification Number)

Fate Therapeutics, Inc.
3535 General Atomics Court, Suite 200
San Diego, CA 92121
(858) 875-1800
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Christian Weyer, M.D., M.A.S.
President and Chief Executive Officer
Fate Therapeutics, Inc.
3535 General Atomics Court, Suite 200
San Diego, CA 92121
(858) 875-1800
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

Kingsley L. Taft Maggie L. Wong Mitzi Chang Goodwin Procter LLP 4365 Executive Drive, Suite 300 San Diego, CA 92121 (858) 202-2700	Cindy R. Tahl Corporate Counsel Fate Therapeutics, Inc. 3535 General Atomics Court, Suite 200 San Diego, CA 92121 (858) 875-1800	Thomas W. Kellerman David W. Pollak Albert Lung Morgan, Lewis & Bockius LLP 2 Palo Alto Square 3000 El Camino Real, Suite 700 Palo Alto, CA 94306 (650) 843-4000

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

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, as amended, check the following box. ☐

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

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

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

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

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

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Proposed Maximum Aggregate Offering Price[(1)(2)]	Amount of Registration Fee[(3)]
Common Stock, par value $0.001 per share	$	$

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

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

(3) Calculated pursuant to Rule 457(o) based on an estimate of the proposed maximum aggregate offering price of the securities registered hereunder. The filing fee is not being submitted with this confidential submission as a result of guidance provided by the Securities and Exchange Commission on the Jumpstart Our Business Startups Act of 2012.

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 this registration statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

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The information in this preliminary prospectus is not complete and may be changed. 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 nor does it seek an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

PROSPECTUS (Subject to Completion) **Dated , 2013**

Shares

Common Stock

This is the initial public offering of shares of our common stock. We are offering shares of our common stock. Prior to this offering, there has been no public market for our common stock. We have applied to list our common stock on The NASDAQ Global Market under the symbol "FATE." We expect that the initial public offering price of our common stock will be between $ and $ per share.

We are an "emerging growth company" under applicable Securities and Exchange Commission rules and will be subject to reduced public company reporting requirements for this prospectus and future filings. See "Prospectus Summary—Implications of Being an Emerging Growth Company."

Our business and an investment in our common stock involve significant risks. These risks are described under the caption "Risk Factors" beginning on page 10 of this prospectus.

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

	Per Share	*Total*
Public offering price	**$**	**$**
Underwriting discount[(1)]	**$**	**$**
Proceeds, before expenses, to us	**$**	**$**

(1) We refer you to "Underwriting" beginning on page 136 of this prospectus for additional information regarding total underwriter compensation.

The underwriters may also purchase up to an additional shares from us at the public offering price, less the underwriting discount, within 30 days from the date of this prospectus.

The underwriters expect to deliver the shares against payment in New York, New York on , 2013.

Cowen and Company **BMO Capital Markets**

Wedbush PacGrow Life Sciences

, 2013

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Through and including , 2013 (the 25th day after the date of this prospectus), all dealers effecting transactions in these securities, whether or not participating in this offering, may be required to deliver a prospectus. This 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.

You should rely only on the information contained in this prospectus or in any free writing prospectus we file with the Securities and Exchange Commission. We and the underwriters have not authorized anyone to provide you with information different from that contained in this prospectus or any free writing prospectus. We and the underwriters are offering to sell, and seeking offers to buy, common stock only in jurisdictions where offers and sales are permitted. The information contained in this prospectus is accurate only as of the date on the front cover of this prospectus, or other earlier date stated in this prospectus, regardless of the time of delivery of this prospectus or of any sale of our common stock.

PROSPECTUS SUMMARY

Overview

We are a clinical-stage biopharmaceutical company engaged in the discovery and development of pharmacologic modulators of adult stem cells to treat orphan diseases, including certain hematologic malignancies, lysosomal storage disorders and muscular dystrophies. Our novel approaches utilize established pharmacologic modalities, including small molecules and therapeutic proteins, and target well-characterized biological mechanisms to enhance the therapeutic potential of adult stem cells. Adult stem cells play a key role in the growth, maintenance and repair of many tissues and organ systems in the body. Due to their natural ability to self-renew, and to regenerate and repair diseased or damaged tissue, adult stem cells hold considerable therapeutic promise. Based on our deep understanding of key biological mechanisms that guide the fate of adult stem cells, we have built two platforms that modulate the activity of adult stem cells using both *ex vivo* and *in vivo* techniques.

Our HSC modulation platform focuses on the *ex vivo* pharmacologic optimization of hematopoietic stem cells, or HSCs, which are adult stem cells that regenerate all types of blood cells throughout a person's lifespan. HSCs have been used for decades in a potentially curative or life-saving procedure called hematopoietic stem cell transplant, or HSCT. This procedure is most commonly performed in patients with hematologic malignancies to replace a diseased hematopoietic system with a healthy one. While over one million HSCT procedures have been performed to date, we believe HSCs have not been pharmacologically optimized to improve patient outcomes.

ProHema, the lead product candidate from our HSC modulation platform, is a pharmacologically-modulated HSC therapeutic derived from umbilical cord blood. We have established human proof-of-concept for ProHema in the clinical setting by demonstrating enhanced engraftment, which is an important determinant of patient outcomes. We are presently advancing ProHema in Phase 2 clinical development for hematologic malignancies. We are also developing pharmacologically optimized HSC therapeutics for the treatment of certain lysosomal storage disorders, or LSDs, where HSCs have demonstrated the ability to home to and engraft within the central nervous system, or CNS.

Our SSC modulation platform focuses on the *in vivo* pharmacologic activation of satellite stem cells, or SSCs, which are adult stem cells that regenerate muscle throughout a person's lifespan. The regenerative capacity of SSCs in skeletal muscle is exhausted both as we age and in degenerative conditions such as muscular dystrophies. We have identified Wnt7a as a natural promoter of SSCs to drive muscle regeneration and are initially focused on developing Wnt7a protein analogs for the treatment of muscular dystrophies. We believe that our regenerative approach for treating muscular dystrophies holds significant therapeutic promise and is distinct from other approaches which focus on preventing muscle degeneration.

Our Wnt7a analogs have demonstrated proof-of-concept in animal models of muscular dystrophy. In these studies, our Wnt7a analogs were shown to drive a significant expansion of the SSC population, as well as significant increases in muscle hypertrophy and muscle strength. We are presently advancing our Wnt7a analogs in preclinical development with the goal of filing an Investigational New Drug application, or IND, in 2014.

We believe that the product candidates generated by our stem cell modulation platforms have significant potential as life-changing or curative therapeutics across a broad range of orphan indications. We plan to continue the validation of our product platforms by demonstrating the clinical benefit of our initial product candidates in three orphan disease settings over the next three years: hematologic malignancies, LSDs and muscular dystrophy.

Our HSC Modulation Platform

Our HSC modulation platform represents a novel approach to improving patient outcomes in HSCT: we enhance the biological properties of HSCs *ex vivo* to drive well-understood biological mechanisms *in vivo* that are critical to the success of the procedure. Our novel approach encompasses the following advantages:

- ***We optimize HSCs ex vivo to enhance their biological properties***. Our strategies and methods of optimizing HSCs *ex vivo* are designed to achieve desired therapeutic effects *in vivo*. Our proprietary processes induce profound changes in the expression of key genes in HSCs that are critical for homing and engraftment.
- ***Our platform is applicable across different stem cell sources and a broad range of diseases***. We believe that our approach to the pharmacologic optimization of HSCs can be applied across various sources of HSCs in both the allogeneic and autologous HSCT settings. Accordingly, we believe our HSC modulation platform will enable us to develop additional HSC therapeutics to treat a broad spectrum of orphan disorders.
- ***Our proprietary HSC optimization process can be readily adopted into the HSCT standard of care***. We believe we can efficiently optimize HSCs in a rapid *ex vivo* modulation process conducted onsite at the clinical center. Following this process, the enhanced cells are washed to remove the modulators and can be immediately infused into the patient within the established framework of HSCT.

Our SSC Modulation Platform

We believe we are the first company to demonstrate that SSCs can be pharmacologically modulated *in vivo* to improve muscle regeneration. We believe that our approach is novel and applicable across multiple forms of muscular dystrophies and neuromuscular disorders. The advantages of our SSC modulation platform include:

- ***Our modulation of SSCs is receptor-mediated and highly specific.*** We leverage the inherent specificity conferred by the endogenous protein Wnt7a and its receptor, which is selectively expressed in muscle tissue. We believe this will enable us to develop therapeutics with a low risk of off-target effects.
- ***Our SSC modulation platform is enabled by our expertise in the development of Wnt-based therapeutics.*** While the regenerative potential of the Wnt protein family is well established, Wnt proteins have not been developed as therapeutics due to challenges in the scaled manufacture and formulation of this class of proteins. We have systematically applied structural prediction, rational design and protein engineering techniques to overcome these challenges. We believe we are the first company to produce Wnt analogs that are amenable to therapeutic development and *in vivo* administration.
- ***We drive muscle regeneration through a unique dual mechanism of action.*** In preclinical studies, a single injection of our Wnt7a analogs resulted in an expansion of the SSC population and an increase in muscle hypertrophy. We have demonstrated that these profound effects resulted in a significant increase in muscle strength. We believe the ability of our Wnt7a protein analogs to both activate SSC population expansion and increase muscle hypertrophy is a unique dual mechanism of action for the treatment of muscular dystrophies.
- ***Our Wnt7a analogs have therapeutic potential as stand-alone or complementary treatments across a broad spectrum of muscular dystrophies.*** While most approaches to treat muscular dystrophies seek to slow the degeneration of muscle in genetically distinct subtypes of the disease, our Wnt7a analogs drive muscle regeneration and have the potential to treat a broader spectrum of muscular dystrophies either as stand-alone or complementary therapeutics.
- ***Our SSC modulation platform has potential beyond muscular dystrophies.*** We believe that the regenerative potential of our Wnt7a analogs is broadly applicable to other neuromuscular disorders such as cachexia, atrophy, trauma and sarcopenia.

Our Product Candidate Pipeline

The following table summarizes key information about our two platforms and our product candidates:

Product Candidate	Targeted Orphan Disorders	Status
HSC Modulation Platform		
ProHema	Adult hematologic malignancies	Phase 2
ProHema	Pediatric hematologic malignancies	Phase 1
ProHema	LSDs	Preclinical
Second Generation HSC Therapeutic	LSDs	Preclinical
SSC Modulation Platform		
Wnt7a Protein Analogs	Muscular dystrophies	Preclinical
Wnt7a Protein Analogs	Neuromuscular disorders	Preclinical

Our ProHema Product Candidate

ProHema is a pharmacologically-modulated HSC therapeutic derived from umbilical cord blood. It is manufactured in the transplant center by modulating an umbilical cord blood unit with 16, 16-dimethyl prostaglandin E2, which we refer to as FT1050, to create our final HSC therapeutic. The HSC modulation process takes only two hours, can be performed directly in the transplant center, does not require significant changes to existing infrastructure and is compatible with standard of care treatment modalities.

ProHema has the potential to improve patient outcomes by enhancing hematopoietic reconstitution through accelerated and durable engraftment, facilitating greater donor matching flexibility, reducing the risk of major side effects, and enabling the use of less toxic conditioning regimens. In a Phase 1b clinical trial in adult patients with hematologic malignancies, treatment with ProHema demonstrated a statistically significant improvement in time to neutrophil engraftment; improvements in the cumulative incidence of neutrophil and platelet engraftment; favorable 100-day survival; a low incidence of a serious complication known as graft-versus-host disease, or GvHD; and durable long-term hematopoietic reconstitution.

Based on these data, we initiated a Phase 2 clinical trial of ProHema in adult patients with hematologic malignancies in the fourth quarter of 2012. More recently, we have demonstrated that we can further enhance the potency and efficacy of ProHema by incorporating an improved nutrient-rich media formulation, which we refer to as our NRM formulation, in the manufacture of ProHema. In preclinical studies, ProHema manufactured using our NRM formulation exhibited a more than two-fold improvement in engraftment over the prior media formulation.

In order to take advantage of this recent development, we have elected to pause enrollment in our Phase 2 clinical trial to incorporate our NRM formulation. Our Phase 2 clinical trial of ProHema is currently active but not recruiting. We intend to amend our IND to incorporate our NRM formulation for the manufacture of ProHema before the end of 2013. Subject to the consent of the FDA, we expect to resume enrollment of our Phase 2 clinical trial in 2014. We also expect to commence an additional clinical trial in children and adolescents with hematologic malignancies in 2014.

The therapeutic potential of HSCT procedures in LSDs has been demonstrated in clinical studies showing that many neurological manifestations of LSDs can be prevented or substantially reduced through early HSCT intervention. These effects have been attributed to the ability of HSCs to home to and engraft within the CNS, where they give rise to cells that correct the underlying enzyme deficiency in the brain. We have demonstrated in a preclinical model that the *ex vivo* modulation of HSCs increased the number of transplanted cells that home to the CNS. We plan to initiate a clinical trial of ProHema in patients with LSDs in 2014. We are also developing second-generation HSC therapeutics to further improve the CNS-homing ability of modulated HSCs.

Our Wnt7a Product Candidates

We have identified Wnt7a, a naturally-occurring secreted protein, as a key regulator of skeletal muscle regeneration. We have demonstrated the therapeutic potential of our proprietary Wnt7a analogs in various preclinical models. In these studies, a single administration of a Wnt7a analog resulted in an approximately three-fold expansion in the population of SSCs, a 20% increase in muscle hypertrophy, a reduction in disease-specific muscle fiber necrosis and a 19% increase in muscle strength.

Subject to the completion of IND-enabling studies, we plan to file an IND in 2014 to evaluate a Wnt7a analog in the clinical setting. The primary goal of our first clinical trials will be to provide initial safety assessments and pharmacodynamic analyses, evaluate dose and treatment regimen of the Wnt7a analog in healthy volunteers and X chromosome-linked muscular dystrophy patients, and assess efficacy.

Our Strategy

Our goal is to realize the therapeutic potential of our two stem cell modulation platforms across a broad range of orphan diseases through the discovery, development and commercialization of first-in-class therapeutics. The key elements of our strategy are to:

- validate the therapeutic potential of our stem cell modulation platforms by demonstrating the clinical benefit of our initial product candidates in three orphan disease settings over the next three years: hematologic malignancies, LSDs and muscular dystrophy;
- develop and commercialize our orphan product candidates through efficient clinical development, expedited regulatory pathways and a focused and highly targeted commercial infrastructure; and
- leverage lifecycle opportunities through indication expansion and the generation of additional product candidates.

We may also seek partners who can bring therapeutic, development and commercialization capabilities, geographical expertise and financial resources that allow us to leverage the potential of our product platforms within or beyond our initial clinical and commercial focus.

Our Risks

An investment in our common stock involves a high degree of risk. You should carefully consider the risks summarized below. These risks are discussed more fully in the “Risk Factors” section immediately following this prospectus summary. These risks include, but are not limited to, the following:

- we have a limited operating history, have incurred significant losses since our inception and anticipate that we will continue to incur significant losses in the foreseeable future;
- we will need to obtain additional financing to complete the clinical development of ProHema and the preclinical and clinical development of our Wnt protein analogs;
- our product candidates are based on novel technologies for which it is difficult to predict the time and cost of their development and commercialization;
- we may face delays in the clinical development of ProHema and the preclinical and clinical development of our Wnt protein analogs and may fail to commence, resume or complete any of our planned development activities;
- we have not completed clinical development of any product candidates and do not have any products approved for sale by the FDA or any other regulatory bodies;

- we rely on third parties to manufacture our product candidates and to manage various aspects of our clinical trials;
- we may face difficulties in protecting and maintaining our intellectual property rights, including intellectual property rights that are licensed to us;
- we currently do not have the infrastructure to commercialize any of our product candidates if such products receive regulatory approval; and
- we expect to face significant uncertainty over pricing and reimbursement of any of our product candidates that are approved for commercialization.

Implications of Being an Emerging Growth Company

We qualify as an "emerging growth company" as defined in the Jumpstart Our Business Startups Act of 2012, as amended, or the JOBS Act. As an emerging growth company, we may take advantage of specified reduced disclosure and other requirements that are otherwise applicable generally to public companies. These provisions include:

- only two years of audited financial statements in addition to any required unaudited interim financial statements with correspondingly reduced "Management's Discussion and Analysis of Financial Condition and Results of Operations" disclosure;
- reduced disclosure about our executive compensation arrangements;
- no non-binding advisory votes on executive compensation or golden parachute arrangements; and
- exemption from the auditor attestation requirement in the assessment of our internal control over financial reporting.

We may take advantage of these exemptions for up to five years or such earlier time that we are no longer an emerging growth company. We would cease to be an emerging growth company on the date that is the earliest of (i) the last day of the fiscal year in which we have total annual gross revenues of $1 billion or more; (ii) the last day of our fiscal year following the fifth anniversary of the date of the completion of this offering; (iii) the date on which we have issued more than $1 billion in nonconvertible debt during the previous three years; or (iv) the date on which we are deemed to be a large accelerated filer under the rules of the Securities and Exchange Commission, or SEC. We may choose to take advantage of some but not all of these exemptions. We have taken advantage of reduced reporting requirements in this prospectus. Accordingly, the information contained herein may be different from the information you receive from other public companies in which you hold stock. We have irrevocably elected to ''opt out'' of the exemption for the delayed adoption of certain accounting standards and, therefore, will be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies.

Company and Other Information

We were incorporated under the laws of the State of Delaware in April 2007. Our principal executive office is located at 3535 General Atomics Court, Suite 200, San Diego, CA 92121, and our telephone number is (858) 875-1800. Our website address is www.fatetherapeutics.com. We do not incorporate the information on or accessible through our website into this prospectus, and you should not consider any information on, or that can be accessed through, our website a part of this prospectus.

We own various U.S. federal trademark registrations and applications, and unregistered trademarks, including the following marks referred to in this prospectus: Fate Therapeutics®, our corporate logo and

ProHema®. All other trademarks or trade names referred to in this prospectus are the property of their respective owners. Solely for convenience, the trademarks and trade names in this prospectus are referred to without the symbols ® and ™, but such references should not be construed as any indicator that their respective owners will not assert, to the fullest extent under applicable law, their rights thereto.

This prospectus summary highlights information contained elsewhere in this prospectus and does not contain all of the information that you should consider in making your investment decision. Before investing in our common stock, you should carefully read this entire prospectus, including our financial statements and the related notes included elsewhere in this prospectus. You should also consider, among other things, the matters described under “Risk Factors” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in each case appearing elsewhere in this prospectus. Unless otherwise stated, all references to “us,” “our,” “Fate,” “we,” the “Company” and similar designations refer to Fate Therapeutics, Inc.

The Offering	
Common stock offered by us	shares
Common stock to be outstanding immediately after this offering	shares
Underwriters' option to purchase additional shares	shares
Use of proceeds	We intend to use the proceeds from this offering for research and development activities to advance our HSC modulation platform and SSC modulation platform, the clinical and preclinical development of our product candidates and working capital and general corporate purposes. For a more complete description of our intended use of the proceeds from this offering, see "Use of Proceeds."
Risk factors	You should carefully read "Risk Factors" on page 10 in this prospectus for a discussion of factors that you should consider before deciding to invest in our common stock.
Proposed NASDAQ Global Market symbol	"FATE"

The number of shares of our common stock to be outstanding after this offering is based on 58,289,352 shares of our common stock outstanding as of March 31, 2013 and excludes:

- 9,804,896 shares of common stock issuable upon the exercise of stock options outstanding as of March 31, 2013 at a weighted average exercise price of $0.22 per share;
- 234,482 shares of common stock issuable upon the exercise of warrants outstanding as of March 31, 2013 at a weighted average exercise price of $1.11 per share, which warrants prior to the completion of this offering are exercisable to purchase convertible preferred stock, assuming such warrants will not be exercised prior to the completion of this offering;
- shares of common stock reserved for future issuance under our 2013 Stock Option and Incentive Plan, or the 2013 Plan, which will become effective upon the completion of this offering; and
- up to 3,125,000 shares of common stock that may be issuable to holders of exchangeable shares of Fate Therapeutics (Canada) Inc., or Fate Canada, in connection with certain milestone or change of control events that may occur after this offering, as described in "Description of Capital Stock—Exchangeable Shares in Canadian Subsidiary" elsewhere in this prospectus.

Unless otherwise indicated, all information in this prospectus reflects or assumes the following:

- the filing of our amended and restated certificate of incorporation and the adoption of our amended and restated bylaws, which will occur immediately prior to the completion of this offering;
- the conversion of all of our outstanding shares of convertible preferred stock into 46,992,394 shares of common stock upon the completion of this offering;
- the issuance of 2,625,000 shares of common stock pursuant to the redemption of an aggregate of 900,000 exchangeable shares of Fate Canada immediately prior to the completion of this offering, as described in "Description of Capital Stock—Exchangeable Shares in Canadian Subsidiary" elsewhere in this prospectus; and
- no exercise by the underwriters of their option to purchase up to an additional shares of common stock in this offering.

Summary Consolidated Financial Data

The following summary consolidated financial information should be read together with our consolidated financial statements and accompanying notes and information under the caption "Management's Discussion and Analysis of Financial Condition and Results of Operations" appearing elsewhere in this prospectus. Our historical results are not necessarily indicative of results that may be expected in the future and results of interim periods are not necessarily indicative of the results for the entire year.

The summary consolidated statement of operations data for the years ended December 31, 2011 and 2012 are derived from our audited consolidated financial statements appearing elsewhere in this prospectus. The summary consolidated statement of operations data for the three months ended March 31, 2012 and 2013 and the period from April 27, 2007 (inception) through March 31, 2013 and consolidated balance sheet data as of March 31, 2013 are derived from our unaudited consolidated financial statements and related notes appearing elsewhere in this prospectus. The unaudited consolidated financial statements have been prepared on a basis consistent with our audited consolidated financial statements included in this prospectus and, in the opinion of management, reflect all adjustments, consisting only of normal recurring adjustments, necessary to fairly state our financial position as of March 31, 2013 and results of operations for the three months ended March 31, 2012 and 2013.

	Years Ended December 31,		Three Months Ended March 31,		Period from April 27, 2007 (inception) through March 31, 2013
	2011	2012	2012	2013	
			(unaudited)		(unaudited)
	(in thousands, except share and per share data)				
Consolidated Statement of Operations Data:					
Revenue:					
Collaboration revenue	$ 833	$ 1,268	$ 208	$ 209	$ 2,510
Grant revenue	337	1,402	210	263	2,002
Total revenue	1,170	2,670	418	472	4,512
Operating expenses:					
Research and development	9,858	11,999	2,481	2,531	47,510
General and administrative	4,605	4,228	1,057	1,297	25,368
Total operating expenses	14,463	16,227	3,538	3,828	72,878
Loss from operations	(13,293)	(13,557)	(3,120)	(3,356)	(68,366)
Total other income (expense)	(134)	(682)	(114)	(192)	(797)
Net loss and comprehensive loss	$ (13,427)	$ (14,239)	$ (3,234)	$ (3,548)	$ (69,163)
Net loss per common share, basic and diluted[1]	$ (2.49)	$ (2.01)	$ (0.53)	$ (0.45)	
Weighted-average shares used to compute basic and diluted net loss per share[1]	5,401,234	7,087,303	6,126,883	7,886,614	
Pro forma net loss per common share, basic and diluted (unaudited)[1]		$ (0.30)		$ (0.06)	
Weighted-average shares used to compute pro forma net loss per common share, basic and diluted (unaudited)[1]		48,521,484		57,504,008	

	As of March 31, 2013		
	Actual	Pro Forma[2]	Pro Forma As Adjusted[3]
		(unaudited) (in thousands)	
Consolidated Balance Sheet Data:			
Cash and cash equivalents	$ 4,647	$ 4,647	$
Working capital	1,174	1,346	
Total assets	6,437	6,437	
Warrant liability	172	—	
Long-term debt, net of current portion	1,240	1,240	
Exchangeable share liability	656	—	
Convertible preferred stock	56,526	—	
Deficit accumulated during the development stage	(69,163)	(69,163)	
Total stockholders' deficit	(56,285)	1,069	

(1) See Note 1 to our consolidated financial statements included elsewhere in this prospectus for an explanation of the method used to calculate the historical and pro forma net loss per share, basic and diluted, and the number of shares used in the computation of the per share amounts.

(2) The pro forma information in the table gives effect to (i) the filing and effectiveness of our amended and restated certificate of incorporation, (ii) the conversion of all outstanding shares of our convertible preferred stock into an aggregate of 46,992,394 shares of common stock immediately prior to the completion of this offering, (iii) the issuance of 2,625,000 shares of common stock pursuant to the redemption of an aggregate of 900,000 exchangeable shares of Fate Canada as described in "Description of Capital Stock—Exchangeable Shares in Canadian Subsidiary" elsewhere in this prospectus, which will occur immediately prior to the completion of this offering, and the resultant reclassification of our exchangeable share liability to additional paid-in capital, a component of stockholders' equity and (iv) the adjustment of our outstanding warrants to purchase 230,000 shares of convertible preferred stock into warrants to purchase 234,482 shares of common stock upon the completion of this offering, and the resultant reclassification of our warrant liability to additional paid-in capital, a component of stockholders' equity.

(3) The pro forma as adjusted information in the table gives further effect to our sale in this offering of shares of common stock at an assumed initial public offering price of $ per share (the midpoint of the price range set forth on the cover page of this prospectus), after deducting the underwriting discounts and commissions and estimated offering expenses payable by us.

RISK FACTORS

Investing in our common stock involves a high degree of risk. You should carefully consider the risks described below along with all of the other information contained in this prospectus, including our financial statements and the related notes, before deciding whether to purchase our common stock. If any of the adverse events described in the following risk factors, as well as other factors which are beyond our control, actually occurs, our business, results of operations and financial condition may suffer significantly. As a result, the trading price of our common stock could decline, and you may lose all or part of your investment in our common stock.

Risks Related to Our Financial Position

We have a limited operating history, have incurred significant losses since our inception and anticipate that we will continue to incur significant losses for the foreseeable future.

We are a clinical-stage biopharmaceutical discovery and development company, formed in 2007, with a limited operating history. Since inception we have devoted substantially all of our resources to the development of our stem cell modulation platforms, the clinical and preclinical advancement of our product candidates, the creation, licensing and protection of related intellectual property and the provision of general and administrative support for these operations. We have not yet obtained regulatory approval for any product candidates or generated any revenues from therapeutic product sales. If ProHema or any of our other product candidates fails in clinical trials or preclinical development, or does not gain regulatory approval, or if our product candidates do not achieve market acceptance, we may never become profitable.

We have incurred net losses in each year since our inception, including net losses of approximately $13.4 million and $14.2 million for the years ended December 31, 2011 and 2012, respectively, and approximately $3.2 million and $3.5 million for the three months ended March 31, 2012 and 2013, respectively. As of March 31, 2013, we had an accumulated deficit of approximately $69.2 million. We expect to continue to incur losses for the foreseeable future, and we expect these losses to increase as we continue our development of, and seek regulatory approval for, our product candidates. In addition, if we receive approval to market any of our product candidates, we will incur additional losses as we build an internal sales and marketing organization to commercialize any approved products. We also expect our expenditures to increase as we add infrastructure and personnel to support our operations as a public company. We anticipate that our net losses for the next several years could be significant as we conduct our planned operations.

Because of the numerous risks and uncertainties associated with pharmaceutical and biological product development, we are unable to accurately predict the timing or amount of increased expenses or when, or if, we will be able to achieve profitability. In addition, our expenses could increase if we are required by the U.S. Food and Drug Administration, or FDA, or comparable foreign regulatory authorities, to perform studies or trials in addition to those currently expected, or if there are any delays in completing our clinical trials or the development of any of our product candidates. The amount of our future net losses will depend, in part, on the rate of increase in our expenses, our ability to generate revenues and our ability to raise additional capital. These net losses have had, and will continue to have, an adverse effect on our stockholders' equity and working capital.

We will require substantial additional funding, which may not be available to us on acceptable terms, or at all, and, if not available, may require us to delay, scale back or cease our product development activities and operations.

We are currently advancing ProHema through clinical development and our Wnt7a analogs through preclinical development. Developing biological products, including conducting preclinical studies and clinical trials, is expensive. We will require substantial additional capital in order to complete the clinical development of, and to commercialize, ProHema, and to conduct the research and development and clinical and regulatory activities necessary to bring other product candidates to market. If the FDA or comparable foreign regulatory authorities require that we perform additional preclinical studies or clinical trials at any point, our expenses would further increase beyond what we currently expect, and the anticipated timing of any future clinical development activities

and potential regulatory approvals would likely be delayed. Raising funds in the current economic environment may be difficult and additional funding may not be available on acceptable terms, or at all.

The amount and timing of our future funding requirements, both near- and long-term, will depend on many factors, including, but not limited to:

- the timing of our planned IND amendment to incorporate the use of our NRM formulation in our clinical development activities for ProHema, and the FDA's agreement to such amendment;
- the agreement by the FDA and any foreign regulatory authorities to accept our protocols for clinical trials of ProHema, our Wnt7a analogs or any other product candidates that we may develop;
- the progress, costs, results and timing of our Phase 2 clinical trial and planned Phase 1b clinical trial of ProHema and our planned additional preclinical studies and Phase 1 clinical trial of our Wnt7a analogs;
- our ability to initiate, and the size, outcome, costs and timing of additional future clinical trials, including Phase 3 clinical trial costs for ProHema, that will be necessary to support any application for regulatory approval of our product candidates;
- the number and characteristics of product candidates that we pursue, including our product candidates in preclinical development;
- our need to expand our research and development activities, including the hiring of additional employees;
- the costs of acquiring, licensing or investing in complementary businesses, products, product candidates and technologies;
- our ability to maintain, expand and defend the scope of our intellectual property portfolio, including the amount and timing of any payments we may be required to make, or that we may receive, in connection with the licensing, filing, prosecution, defense and enforcement of any patents or other intellectual property rights;
- the effect of competing technological and market developments;
- our need to implement additional internal systems and infrastructure, including financial and reporting systems, as we become a public company;
- the costs associated with securing and establishing commercialization and manufacturing capabilities;
- market acceptance of any products for which we receive approval; and
- the economic and other terms, timing of and success of our existing licensing arrangements and any collaboration, licensing or other arrangements into which we may enter in the future.

Some of these factors are outside of our control. Upon the completion of this offering, based upon our currently expected level of operating expenditures, we believe that we will be able to fund our operations for at least the next 12 months. This period could be shortened if there are any significant or unanticipated increases in spending on development programs. In addition, the expected net proceeds from this offering will not be sufficient to complete the advanced clinical development, including Phase 3 clinical trials, of ProHema or clinical trials of our Wnt analogs that would be necessary to support an application for regulatory approval. Accordingly, we will continue to require substantial additional capital beyond the expected proceeds of this offering. Because successful development of our product candidates is uncertain, we are unable to estimate the actual funds we will require to complete research and development and commercialize our products under development.

If we are required to secure additional financing, such additional fundraising efforts may divert our management from our day-to-day activities, which may adversely affect our ability to develop and commercialize our product candidates. In addition, we cannot guarantee that future financing will be available in sufficient amounts or on terms acceptable to us, if at all. If we are unable to raise additional capital when required or on acceptable terms, we may be required to significantly delay, scale back or discontinue the development or commercialization of one or more of our product candidates or curtail our operations, which will have a material adverse effect on our business, operating results and prospects.

We may sell additional equity or debt securities or enter into other arrangements to fund our operations, which may result in dilution to our stockholders and impose restrictions or limitations on our business.

We may seek additional funding through a combination of equity offerings, debt financings, government or other third-party funding and other collaborations, strategic alliances and licensing arrangements. These financing activities may have an adverse impact on our stockholders' rights as well as on our operations. For example, any equity financing, or any issuance of securities that may be converted, exercised or exchanged for shares of our capital stock, will result in dilution to our stockholders and may cause the market price of our stock to decline, and any debt financing may impose restrictive covenants on our operations or otherwise adversely affect the holdings or the rights of our stockholders. In addition, if we seek funds through arrangements with collaborative partners, these arrangements may require us to relinquish rights to some of our technologies or product candidates or otherwise agree to terms unfavorable to us.

There is substantial doubt as to our ability to continue as a going concern.

Due to our recurring losses from operations, there is substantial doubt about our ability to continue as a going concern, meaning that we may not be able to continue in operation for the foreseeable future or be able to realize assets and discharge liabilities in the ordinary course of operations. Our audited consolidated financial statements at December 31, 2012 and for the year then ended were prepared assuming that we will continue as a going concern. However, the report of our independent registered public accounting firm included elsewhere in this prospectus contains an explanatory paragraph on our consolidated financial statements stating there is substantial doubt about our ability to continue as a going concern. Such an opinion could materially limit our ability to raise additional funds through the issuance of new debt or equity securities or otherwise. There is no assurance that sufficient financing will be available when needed to allow us to continue as a going concern. The perception that we may not be able to continue as a going concern may also make it more difficult to operate our business due to concerns about our ability to meet our contractual obligations.

Risks Related to the Discovery, Development and Regulation of Our Product Candidates

If we fail to complete preclinical development and clinical trials, obtain regulatory approval, or successfully commercialize our product candidates from our HSC and SSC modulation platforms, our business would be significantly harmed.

We have not completed clinical development for any of our product candidates and will only obtain regulatory approval to commercialize a product candidate if we can demonstrate to the satisfaction of the FDA or comparable foreign regulatory authorities in well-designed and conducted clinical trials that the product candidate is safe, pure and potent, or effective, and otherwise meets the appropriate standards required for approval for a particular indication. Clinical trials are lengthy, complex and extremely expensive processes with uncertain results. A failure of one or more clinical trials may occur at any stage.

We have never obtained marketing approval from the FDA or any comparable foreign regulatory authority for any product candidate. Our ability to obtain regulatory approval of our product candidates depends on, among other things, completion of additional preclinical studies and clinical trials, whether our clinical trials demonstrate statistically significant efficacy with safety issues that do not potentially outweigh the therapeutic benefit of the product candidates, and whether the regulatory agencies agree that the data from our future clinical trials are sufficient to support approval for any of our product candidates. The final results of our current and future clinical trials may not meet FDA or other regulatory agencies' requirements to approve a product candidate for marketing, and the regulatory agencies may otherwise determine that our manufacturing processes or facilities are insufficient to support approval. We may need to conduct more clinical trials than we currently anticipate. Even if we do receive FDA or other regulatory agency approval, we may not be successful in commercializing approved product candidates. If any of these events occur, our business could be materially harmed and the value of our common stock would likely decline.

Our product candidates are based on novel technologies for which it is difficult to predict the time and cost of development and ability to be approved for commercialization.

Our product candidates are based on our novel HSC and SSC modulation platforms, and unexpected problems related to this new technology may arise that can cause us to delay, suspend or terminate our development efforts. Regulatory approval of novel product candidates such as ours can be more expensive and take longer than other more well-known or extensively studied pharmaceutical or biopharmaceutical product candidates due to our and regulatory agencies' lack of experience with them.

Stem cell therapies represent a relatively new therapeutic area, and the FDA has cautioned consumers about potential safety risks associated with these therapies. To date, there are relatively few approved stem cell products. In addition, there are currently no approved products in any major territory throughout the world with a label designation that supports the use of a product to improve multi-lineage engraftment or survival in patients undergoing HSCT, which makes it difficult to determine how long it will take or how much it will cost to obtain regulatory approvals for ProHema or any of our other modulated HSC product candidates in the United States and elsewhere. Furthermore, the requirement that ProHema is manufactured at cell processing facilities in close proximity to transplant centers within a short period of time before transplantation may present unprecedented additional complexities associated with ensuring consistent manufacture across all sites, the degree of qualification testing necessary for cell-based therapies both pre- and post-administration, and ProHema's rapid release nature, all of which contribute to regulatory uncertainty.

Regulatory requirements governing cell therapy products have changed frequently and may continue to change in the future. For example, the FDA established the Office of Cellular, Tissue and Gene Therapies within its Center for Biologics Evaluation and Research, or CBER, to consolidate the review of gene therapy and related products, and the Cellular, Tissue and Gene Therapies Advisory Committee to advise CBER on its review. In addition, adverse developments in clinical trials of potential stem cell therapies conducted by others may cause the FDA or other regulatory bodies to change the requirements for approval of any of our product candidates. These regulatory authorities and advisory groups and the new guidelines they promulgate may lengthen the regulatory review process, require us to perform additional studies, increase our development costs, lead to changes in regulatory positions and interpretations, delay or prevent approval and commercialization of our product candidates or lead to significant post-approval limitations or restrictions. As we advance our product candidates, we will be required to consult with these regulatory and advisory groups, and comply with applicable requirements. If we fail to do so, we may be required to delay or discontinue development of our product candidates. Delay or failure to obtain, or unexpected costs in obtaining, the regulatory approval necessary to bring a potential product to market could impair our ability to generate sufficient product revenues to maintain our business.

Our clinical development of ProHema could be substantially delayed if the FDA does not accept our planned IND and protocol amendments or if the FDA requires us to conduct additional studies or trials.

We initiated a Phase 2 clinical trial, which we refer to as our ProHema-03 trial, of ProHema in December 2012 and recently notified the FDA that we have elected to pause enrollment in our ProHema-03 trial to incorporate the use of our improved NRM formulation in the manufacture of ProHema for the trial. We will be required to submit to the FDA data to qualify our NRM formulation for our ProHema manufacturing process and demonstrate that the use of the NRM formulation will not result in additional safety risks. We will also be required to amend the protocol for our ProHema-03 trial to define how we will resume enrollment with ProHema as manufactured using our NRM formulation. Although we plan to amend our IND before the end of 2013 to allow for the use of our NRM formulation in our ProHema-03 trial, the FDA may not agree with our planned amendment of the IND and allow us to resume enrollment in the ProHema-03 trial. Additionally, the FDA may require us to generate additional preclinical or clinical data to support the use of our NRM formulation in our ProHema-03 trial or any subsequent clinical trials for ProHema that we may plan to conduct. While we currently intend to resume enrollment in our ProHema-03 trial in 2014, such additional requirements may cause further delays in our ProHema-03 trial, which could require us to incur additional development costs, attempt to seek funding for these increased costs or delay or cease our clinical development activities for ProHema. Any inability to advance ProHema or any other product candidate through clinical development would have a material adverse effect on our business.

Our Wnt7a analogs are still in preclinical development, which may not be successful. If we are unable to successfully complete preclinical studies and clinical trials of our Wnt7a analogs, our business will be harmed.

Our Wnt7a analogs are still in preclinical development. To our knowledge, there are no Wnt proteins currently undergoing clinical development, primarily due to certain molecular characteristics that prevent their effective development as biologic therapeutics. Although we believe we are the first company to produce an analog of a Wnt protein that is amenable to manufacture, formulation and administration for *in vivo* therapeutic use, we may later encounter difficulties in manufacturing, formulating or administering of our Wnt7a analogs, or we may otherwise observe undesirable safety or efficacy profiles in these product candidates as our development activities progress. Subject to the completion of IND-enabling studies and our pre-IND meeting with the FDA, we plan to select a lead candidate, file an IND with the FDA and initiate a Phase 1 clinical trial of a Wnt7a analog. If the results of our ongoing or future preclinical studies or clinical trials are not positive, or the FDA does not allow us to proceed with clinical development for any reason, we may delay or cancel our planned clinical development activities for our Wnt7a analogs, which could materially harm our business.

We may face delays in completing our clinical trials, and we may not be able to complete them at all.

We have not completed the clinical trials necessary to support an application for approval to market any of our product candidates. Our current and future clinical trials of ProHema and our other product candidates may be delayed, unsuccessful or terminated as a result of many factors, including:

- delays in our ability to resume enrollment in our ProHema-03 trial;
- the introduction of our NRM formulation into our ProHema-03 trial may not produce the benefits that we currently anticipate or may result in unanticipated adverse effects;
- delays in designing appropriate clinical trial protocols and reaching agreement on trial design with investigators and regulatory authorities;
- delays or failure in reaching agreement on acceptable clinical trial contracts or protocols with prospective sites;
- governmental or regulatory delays, failure to obtain regulatory approval or changes in regulatory requirements, policy or guidelines;
- reaching agreement on acceptable terms with third-party service providers to manage various aspects of our clinical trials, the terms of which can be subject to extensive negotiation and may vary significantly among different service providers and trial sites;
- the actual performance of third-party service providers and clinical trial sites in ensuring the proper and timely conduct of our clinical trials;
- the ability of clinical trial sites to manufacture ProHema consistently under the correct conditions at their on-site cell processing facilities for use in our clinical trials;
- delays in achieving study endpoints and completing data analysis for a trial;
- regulators or institutional review boards, or IRBs, may not authorize us to commence or recommence a clinical trial;
- data safety monitoring committees may recommend suspension, termination or a clinical hold for various reasons, including concerns about patient safety;
- regulators or IRBs may suspend or terminate the trial or impose a clinical hold for various reasons, including noncompliance with regulatory requirements or concerns about patient safety;
- patients with serious, life-threatening diseases included in our clinical trials may die or suffer other adverse medical events for reasons that may not be related to our product candidates;
- participating patients may be subject to unacceptable health risks;

- patients may not complete clinical trials due to safety issues, side effects, or other reasons;
- our product candidates may demonstrate a lack of safety or efficacy during clinical trials; and
- changes in regulatory requirements and guidance may occur, which require us to amend clinical trial protocols to reflect these changes.

The FDA has indicated that we will need to standardize the process for manufacturing ProHema across the multiple cell processing facilities at the clinical sites participating in our trials, and any delays in, or inability to, establish manufacturing protocols acceptable to the FDA will result in further delays to our clinical development plans. Any such events would increase our costs and could delay or prevent our ability to commercialize our product candidates, which could adversely impact our business, financial condition and results of operations.

Moreover, our development costs will increase because we will be required to complete additional or larger clinical trials for product candidates from our HSC and SSC modulation platforms prior to FDA or other regulatory approval. We may not have adequate capital or other resources to commence or complete these additional or larger trials. If we experience delays in the completion of, or termination of, any clinical trial of our product candidates, the commercial prospects of our product candidates will be harmed. In addition, any delays in commencing or completing our clinical trials will increase our costs, slow down our product candidate development and approval process, and jeopardize our ability to commence product sales and generate revenues. Furthermore, many of the factors that cause, or lead to, a delay in the commencement or completion of clinical trials may also ultimately lead to the denial of regulatory approval of our product candidates. Any of these occurrences may significantly harm our business, financial condition and prospects.

If we encounter difficulties enrolling patients in our clinical trials, our clinical development activities could be delayed or otherwise adversely affected.

We will be required to identify and enroll a sufficient number of patients with the disease under investigation for each of our ongoing and planned clinical trials of our product candidates. Each indication for which we plan to evaluate our current product candidates represents a rare disease or condition with limited patient populations from which to draw participants in clinical trials. Due to our focus on the development of product candidates for the treatment of orphan hematologic malignancies, rare genetic diseases and muscular dystrophies, we may not be able to identify and enroll a sufficient number of patients, or those with required or desired characteristics and criteria, in a timely manner. In addition, there are currently only a limited number of specialized transplant centers that perform HSCTs, and among physicians who perform HSCTs, some may not choose to perform these procedures under conditions that fall within our protocols, which would have an adverse effect on our development of ProHema. Our ability to enroll patients in our clinical trials is affected by factors including:

- severity of the disease under investigation;
- design of the trial protocol;
- the relatively small size and nature of the patient population;
- eligibility criteria for the trial in question;
- perceived risks and benefits of the product candidate under study;
- availability of competing therapies and clinical trials;
- efforts to facilitate timely enrollment in clinical trials;
- the availability of time and resources at the limited number of institutions at which clinical trials are and will be conducted;
- the ability to identify, solicit and recruit a sufficient number of patients;
- the ability to monitor patients adequately during and after treatment; and
- the proximity and availability of clinical trial sites for prospective patients.

If we have difficulty enrolling a sufficient number of patients to conduct our clinical trials as planned, we may need to delay or terminate ongoing or planned clinical trials, either of which would have an adverse effect on our business.

Results from preclinical studies and earlier clinical trials do not ensure that future clinical trials will be successful.

All of our product candidates are still in an early stage of development, and we cannot be assured that these trials will ultimately be successful. For example, although the results of our Phase 1b clinical trial of ProHema in adults with hematologic malignancies undergoing double umbilical cord blood transplant demonstrated human proof-of-concept, we may not achieve or duplicate these results in our ProHema-03 trial or planned additional clinical trials of ProHema for a variety of reasons, including:

- the anticipated use of our NRM formulation may not produce the potency and efficacy benefits observed in preclinical studies, or may result in unanticipated side effects in comparison to the standard processing media used in our Phase 1b clinical trial;
- the increase in the number of patients enrolled in later-stage trials may not produce the same or similar results as earlier trials with fewer patients;
- the expansion in the number of participating clinical centers and the variabilities among the centers may result in complexities in conducting clinical trials, which we may be unable to manage adequately;
- we may be unable to ensure the consistent manufacture of ProHema, which is required to be manufactured at cell processing facilities at each clinical center, across all participating clinical centers once we resume our ProHema-03 trial or in any future clinical trials that we may conduct;
- differences in the design of the Phase 2 clinical trial, such as additional conditioning regimens, expanded eligibility criteria, potential patient population changes based on additional clinical centers that are more geographically dispersed, the addition of a concurrent control arm and our efforts to standardize and automate our ProHema manufacturing process to make it acceptable to FDA for entry into Phase 2 clinical trials may make it less effective than the product manufactured during our Phase 1 trial or otherwise adversely affect ProHema; and
- we have not previously evaluated ProHema in pediatric patients, and pediatric patients may experience side effects or other adverse events not observed in adult patients.

Additionally, because our Wnt7a analogs are still in preclinical development, we cannot assure you that any product candidates selected from our SSC modulation platform will demonstrate the safety, purity and potency profile necessary to support further clinical development or regulatory approval.

A number of companies in the pharmaceutical and biotechnology industries have suffered significant setbacks in later stage clinical trials even after achieving promising results in earlier stages of development. Success in preclinical testing and early clinical trials does not ensure that later clinical trials will be successful, and initial results from a clinical trial do not necessarily predict final results. Even if early stage clinical trials are successful, we may need to conduct additional clinical trials for product candidates in additional patient populations or under different treatment conditions before we are able to seek approvals from the FDA and regulatory authorities outside the United States to market and sell these product candidates. Our failure to demonstrate the required characteristics to support marketing approval for our product candidates in our planned and future clinical trials would substantially harm our business and prospects.

Our planned clinical development activities for ProHema present operational, technical and timing issues related to pediatric clinical trials.

Many clinical centers that could potentially participate in our pediatric trials are distinct and separate from the centers participating in our adult trials, and finding sufficient, capable centers that would be interested in participating in our pediatric trials may take additional time. There will be fewer eligible patients with hematologic malignancies

and rare genetic disorders for our planned clinical trials in pediatric patients because the total number of pediatric patients with such diseases and disorders is lower than it is in adults. This may increase the time to enroll our pediatric clinical trials in hematologic malignancies and rare genetic disorders and could also further limit our ability to enroll patients in our planned Phase 1 clinical trial of ProHema in pediatric patients.

As we have not previously evaluated ProHema in pediatric patients, we will have to modify the current formulation of ProHema to one that is suitable for children, due to their smaller size and requirement for smaller infusion volume. Such a modification may present technical challenges and may cause further delays in our planned clinical trial. In addition, we will need FDA review and approval of our modified formulation of ProHema for children. The FDA will need to review and approve our specific clinical plans in pediatric hematologic diseases and rare genetic disorders, and they may present additional requirements including additional adult data before we can proceed with our pediatric clinical trials. Any delays in our clinical development activities for pediatric patients could have an adverse effect on our business operations.

We expect to rely heavily on orphan drug status to develop and commercialize our product candidates, but our orphan drug designations may not confer marketing exclusivity or other expected commercial benefits.

We expect to rely heavily on orphan drug exclusivity for our product candidates, including ProHema. Orphan drug status confers seven years of marketing exclusivity under the Federal Food, Drug, and Cosmetic Act, and up to ten years of marketing exclusivity in Europe for a particular product in a specified indication. While ProHema has received orphan drug designation in two indications, we will not be able to rely on this designation to exclude other companies from manufacturing or selling biological products using the same principal molecular structural features for the same indication beyond these timeframes. Furthermore, the marketing exclusivity in Europe can be reduced from ten years to six years if the initial designation criteria have significantly changed since the market authorization of the orphan product.

For any product candidate for which we have been granted orphan drug designation in a particular indication, it is possible that another company also holding orphan drug designation for the same product candidate will receive marketing approval for the same indication before we do. If that were to happen, our applications for that indication may not be approved until the competing company's period of exclusivity expires. Even if we are the first to obtain marketing authorization for an orphan drug indication, there are circumstances under which a competing product may be approved for the same indication during the seven-year period of marketing exclusivity, such as if the later product is shown to be clinically superior to the orphan product, or if the later product is deemed a different product than ours. Further, the seven-year marketing exclusivity would not prevent competitors from obtaining approval of the same product candidate as ours for indications other than those in which we have been granted orphan drug designation, or for the use of other types of products in the same indications as our orphan product.

Even if we obtain regulatory approval for a product candidate, our products will remain subject to regulatory scrutiny.

Any product candidate for which we obtain marketing approval, along with the manufacturing processes, qualification testing, post-approval clinical data, labeling and promotional activities for such product, will be subject to continual and additional requirements of the FDA and other regulatory authorities. These requirements include submissions of safety and other post-marketing information, reports, registration and listing requirements, good manufacturing practices, or GMP requirements relating to quality control, quality assurance and corresponding maintenance of records and documents, 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 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 pharmaceutical and biological products to ensure such products are marketed only for the approved indications and in accordance with the provisions of the approved labeling.

In addition, later discovery of previously unknown problems with our products, manufacturing processes, or failure to comply with regulatory requirements, may lead to various adverse 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;
- requirements to institute a risk evaluation mitigation strategy, or REMS, to monitor safety of the product post-approval;
- requirements to individually license clinical cell processing facilities for the manufacture of ProHema;
- warning letters issued by the FDA or other regulatory authorities;
- 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, revocation or withdrawal of marketing approvals;
- refusal to permit the import or export of our products; and
- injunctions or the imposition of civil or criminal penalties.

The FDA's policies may change and additional government regulations may be enacted that could prevent, limit or delay regulatory approval of our product candidates. If we are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we are not able to maintain regulatory compliance, we may lose any marketing approval that we may have obtained, which would adversely affect our business, prospects and ability to achieve or sustain profitability.

We may be subject to certain regulations, including federal and state healthcare fraud and abuse laws and health information privacy and security laws. Any failure to comply with these regulations could have a material adverse effect on our business and financial condition.

If we obtain FDA approval for any of our product candidates and begin commercializing those products in the United States, our operations may be subject to various federal and state fraud and abuse laws, including, without limitation, the federal anti-kickback statute. These laws may impact, among other things, our proposed sales, marketing and education programs. In addition, we may be subject to patient privacy regulation by both the federal government and the states in which we conduct our business. The laws that may affect our ability to operate include:

- the federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, which created new federal criminal statutes that prohibit executing a scheme to defraud any healthcare benefit program and making false statements relating to healthcare matters;
- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act and its implementing regulations, which impose certain requirements relating to the privacy, security and transmission of individually identifiable health information; and
- state law equivalents of each of the above federal laws, such as anti-kickback and false claims laws which may apply to items or services reimbursed by any third-party payer, including commercial insurers, and state laws governing the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways and may not have the same effect, thus complicating compliance efforts.

Because of the breadth of these laws and the narrowness of the safe harbors, it is possible that some of our business activities could be subject to challenge under one or more of these laws. If our operations are found to be in

violation of any of the laws described above or any other governmental regulations that apply to us, we may be subject to penalties, including civil and criminal penalties, damages, fines and the curtailment or restructuring of our operations, any of which could adversely affect our ability to operate our business and our results of operations.

We may not elect or be able to take advantage of any expedited development or regulatory review and approval processes available to product candidates granted breakthrough therapy or fast track designation by the FDA.

We are evaluating the possibility of seeking breakthrough therapy or fast track designation for some of our product candidates, although we may elect not to do so. A breakthrough therapy program is for a product candidate intended to treat a serious or life-threatening condition, and preliminary clinical evidence indicates that the product candidate may demonstrate substantial improvement on a clinically significant endpoint(s) over available therapies. In contrast, a fast track program is for a product candidate that treats a serious or life-threatening condition, and nonclinical or clinical data demonstrate the potential to address an unmet medical need. Although we believe some of our product candidates may qualify under either or both of the breakthrough therapy and fast track programs, we may elect not to pursue either of these programs, and the FDA has broad discretion whether or not to grant these designations. Accordingly, even if we believe a particular product candidate is eligible for breakthrough therapy or fast track designation, we cannot assure you that the FDA would decide to grant it. Even if we do receive fast track designation, we may not experience a faster development process, review or approval compared to conventional FDA procedures. The FDA may withdraw fast track designation if it believes that the designation is no longer supported by data from our clinical development program. In addition, the breakthrough therapy program is a relatively new program for which the FDA has not yet published official guidance. As a result, we cannot be certain whether any of our product candidates can or will qualify for breakthrough therapy designation. Our business may be harmed if we are unable to avail ourselves of these or any other expedited development and regulatory pathways.

Risks Related to Our Reliance on Third Parties

We depend on third-party suppliers for various components of our improved NRM formulation for the manufacture of ProHema and do not have supply arrangements for certain of these components.

We currently rely, and expect to continue to rely, on third-party suppliers for components that enable us to develop and use our NRM formulation for the manufacture of ProHema in our Phase 2 clinical trial and any subsequent clinical trials. We have not entered into supply agreements for certain of the components necessary to produce our NRM formulation and may not be able to obtain clinical supply agreements that provide for an adequate and reliable supply of these components to complete our Phase 2 clinical trial or commence any future clinical trials. Even if we are able to secure such clinical supply agreements, we may be limited to a sole manufacturer for certain of the components required in our NRM formulation. Accordingly, we cannot guarantee that we will have an adequate supply of NRM to complete our Phase 2 clinical trial of ProHema as currently contemplated or to complete a Phase 3 clinical trial or any other future clinical trials. In addition, if we are unable to secure adequate quantities of these components from our preferred suppliers, we may be required to identify alternate suppliers of these components, or to modify our NRM formulation. If we are required to change suppliers of our components, or modify our NRM formulation, the efficacy and potency of ProHema may be adversely affected. We also may be required to make further changes to our trial protocol or provide additional data to the FDA regarding the use of alternative components for our NRM formulation or a modified NRM formulation, which could delay our clinical development plans for ProHema and increase the costs required to complete our Phase 2 clinical trial of ProHema or any other clinical trials.

We rely on a third-party supplier for the FT1050 starting material required for the manufacture of ProHema.

To date, we have obtained our supplies of FT1050 for the manufacture of ProHema in our preclinical studies and clinical trials from a single third-party manufacturer. This manufacturer supplies FT1050 to us for our clinical trials on a purchase order basis under a clinical supply manufacturing agreement, and we do not have any current

contractual relationships for the commercial manufacture and supply of bulk FT1050 substance for manufacturing ProHema. Although we believe that we would be able to identify several alternate suppliers for FT1050 should our current third-party manufacturer become unavailable to us for any reason, we may incur delays associated with identifying and qualifying a replacement supplier and negotiating the terms of any supply contracts with the replacement supplier. These delays could adversely impact our clinical development plans and harm our business.

We depend on facilities operated by transplant centers for the manufacture of ProHema under specific conditions. Any failure by these facilities to manufacture ProHema consistently and under the proper conditions may result in delays to our clinical development plans and impair our ability to commercialize ProHema, if approved.

ProHema is currently manufactured at clinical cell processing facilities operated by or affiliated with our clinical sites and is required to be manufactured in close proximity to the treatment site on the same day as product administration. The FDA has stated that we will be required to standardize the manufacture of ProHema to maximize consistency across the multiple clinical cell processing facilities, including our oversight for facility and raw material and vendor qualification through to final product analytical testing and release. Although we are responsible for ensuring compliance with GMPs and for overseeing all aspects of product manufacture and release prior to application for marketing approval, we do not control the activities of these third-party cell processing facilities. The clinical cell processing facilities at which ProHema is manufactured must be approved by applicable regulatory authorities, including the FDA, pursuant to inspections that will be conducted after a Biologics License Application, or BLA, or comparable foreign regulatory marketing application is submitted. We do not control the manufacturing process for ProHema and are completely dependent on third parties for compliance with the FDA's requirements for manufacture. Because of the requirement that ProHema be manufactured in close proximity to the transplant center within a short period of time before transplant, if the applicable clinical cell processing facilities are unable to manufacture ProHema in a manner that conforms to our specifications and the FDA's strict regulatory requirements, we will not be able to secure backup manufacturing capabilities. Any failure by these clinical cell processing facilities to properly manufacture ProHema will have an adverse impact on our business.

We will be substantially dependent on third parties for the manufacture of our clinical supplies of our Wnt7a analogs.

We expect to rely on third-party manufacturers for clinical supplies of our Wnt7a analogs and other product candidates that we may develop. These third-party manufacturers will be required to comply with current GMPs and other applicable laws and regulations. We will have no control over the ability of these third parties to comply with these requirements, or to maintain adequate quality control, quality assurance and qualified personnel. If the FDA or any other applicable regulatory authorities do not approve the facilities of these third parties for the manufacture of our other product candidates or any products that we may successfully develop, or if it withdraws any such approval, or if our suppliers or contract manufacturers decide they no longer want to supply or manufacture for us, we may need to find alternative manufacturing facilities, in which case we might not be able to identify manufacturers for clinical or commercial supply on acceptable terms, or at all. In addition, Wnt proteins have specific molecular characteristics that make their manufacture for therapeutic application difficult, and it is possible that any third-party manufacturers that we engage may experience difficulties in such manufacture. Any of these factors would significantly impact our ability to develop, obtain regulatory approval for or market our Wnt7a analogs and adversely affect our business.

We currently rely on third parties to support the conduct of our clinical trials. If these third parties do not successfully carry out their contractual duties or meet expected deadlines, we may not be able to obtain regulatory approval for or commercialize our product candidates and our business could be substantially harmed.

We have relied upon and plan to continue to rely upon third parties to monitor and manage data for our ongoing clinical programs. We rely on these parties for execution of our clinical trials, and control only certain aspects of their activities. Nevertheless, we are responsible for ensuring that each of our studies is conducted in

accordance with the applicable protocol and legal, regulatory and scientific standards, and our reliance on third parties does not relieve us of our regulatory responsibilities. We also rely on third parties to assist in conducting our nonclinical studies in accordance with good laboratory practices, or GLP. We and our third-party service providers are required to comply with good clinical practices, or GCP, which are regulations and guidelines enforced by the FDA, as well as comparable foreign regulations and guidelines, for all of our product candidates in clinical development. Regulatory authorities enforce these GCP through periodic inspections of trial sponsors, principal investigators and trial sites. If we or any of our third-party service providers or clinical trial sites fail to comply with applicable GCP, the clinical data generated in our clinical trials may be deemed unreliable and the FDA or comparable foreign regulatory authorities may require us to perform additional clinical trials before approving our marketing applications. We cannot assure you that upon inspection by a given regulatory authority, such regulatory authority will determine that any of our clinical trials comply with GCP requirements. In addition, our clinical trials must be conducted with product produced under applicable GMP requirements. Failure to comply with these regulations may require us to repeat nonclinical and clinical trials, which would delay the regulatory approval process.

Our third-party service providers are not our employees, and except for remedies available to us under our agreements with such third parties, we cannot control whether or not they devote sufficient time and resources to our on-going clinical and nonclinical programs. If third-party service providers do not successfully carry out their contractual duties or obligations or meet expected deadlines or if the quality or accuracy of the clinical data they obtain is compromised due to the failure to adhere to our clinical protocols, regulatory requirements or for other reasons, our clinical trials may be extended, delayed or terminated and we may not be able to obtain regulatory approval for or successfully commercialize our product candidates. As a result, our results of operations and the commercial prospects for our product candidates would be harmed, our costs could increase and our ability to generate revenues could be delayed.

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

If we lose our relationships with our third-party service providers, our product development efforts could be delayed.

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

Risks Related to Our Intellectual Property

It is difficult and costly to protect our proprietary rights, and we may not be able to ensure their protection. If our patent position does not adequately protect our product candidates, others could compete against us more directly, which would harm our business, possibly materially.

Our commercial success will depend in part on obtaining and maintaining patent protection and trade secret protection of our current and future product candidates, the processes used to manufacture them and the methods for using them, as well as successfully defending these patents against third-party challenges. As of March 31, 2013, we were the owner of record of 14 patent applications pending in the United States and in certain foreign jurisdictions relating to ProHema and other therapeutic compositions of stem cells that have been pharmacologically modulated to enhance their therapeutic properties, and methods of manufacturing the cellular compositions. As of March 31, 2013, we own two PCT patent applications relating to our Wnt analogs, covering compositions of matter, processes for preparing such Wnt proteins and formulations, and the modulation of SSCs. To date, no patents have been issued to us specifically covering our product candidates, and we cannot be certain that any patents will issue with claims that cover our ProHema and Wnt product candidates.

Our ability to stop third parties from making, using, selling, offering to sell or importing our product candidates is dependent upon the extent to which we have rights under valid and enforceable patents or trade secrets that cover these activities.

The patent positions of biotechnology and pharmaceutical companies can be highly uncertain and involve complex legal and factual questions for which important legal principles remain unresolved. No consistent policy regarding the breadth of claims allowed in pharmaceutical patents has emerged to date in the United States or in foreign jurisdictions outside of the United States. Changes in either the patent laws or interpretations of patent laws in the United States and other countries may diminish the value of our intellectual property. Accordingly, we cannot predict the breadth of claims that may be enforced in the patents that may be issued from the applications we currently or may in the future own or license from third parties. Further, if any patents we obtain or license are deemed invalid and unenforceable, our ability to commercialize or license our technology could be adversely affected.

Others have filed, and in the future are likely to file, patent applications covering products and technologies that are similar, identical or competitive to ours or important to our business. We cannot be certain that any patent application owned by a third party will not have priority over patent applications filed or in-licensed by us, or that we or our licensors will not be involved in interference, opposition, reexamination, review, reissue, post grant review or invalidity proceedings before U.S. or non-U.S. patent offices.

The degree of future protection for our proprietary rights is uncertain because legal means afford only limited protection and may not adequately protect our rights or permit us to gain or keep our competitive advantage. For example:

- others may be able to develop a platform similar to, or better than, ours in a way that is not covered by the claims of our patents;
- others may be able to make compounds that are similar to our product candidates, but that are not covered by the claims of our patents;
- we might not have been the first to make the inventions covered by our pending patent applications;
- we might not have been the first to file patent applications for these inventions;
- our pending patent applications may not result in issued patents;
- the claims of our issued patents or patent applications when issued may not cover our products or product candidates;
- others may independently develop similar or alternative technologies or duplicate any of our technologies;
- any patents that we obtain may not provide us with any competitive advantages;

- any granted patents may be held invalid or unenforceable as a result of legal challenges by third parties;
- we may not develop additional proprietary technologies that are patentable; or
- the patents of others may have an adverse effect on our business.

We depend on our licensors to prosecute and maintain patents and patent applications that are material to our business. Any failure by our licensors to effectively protect these intellectual property rights could adversely impact our business and operations.

As of March 31, 2013, we are the exclusive licensee of 41 issued or pending U.S. and non-U.S. patents or patent applications relating to ProHema and other therapeutic compositions of stem cells that have been pharmacologically modulated to enhance their therapeutic properties, methods of manufacturing the cellular compositions, and methods of promoting hematopoietic reconstitution, expansion and self-renewal using modulators that increase prostaglandin signaling activity.

As of March 31, 2013, we have exclusive licenses to 13 patents and patent applications relating to our Wnt analogs, covering compositions of matter, processes for preparing such Wnt proteins and formulations, and the modulation of SSCs.

As a licensee of third parties, we rely on these third parties to file and prosecute patent applications and maintain patents and otherwise protect the licensed intellectual property under some of our license agreements. We have not had and do not have primary control over these activities for certain of our patents or patent applications and other intellectual property rights. We cannot be certain that such activities by third parties have been or will be conducted in compliance with applicable laws and regulations or will result in valid and enforceable patents and other intellectual property rights. Pursuant to the terms of the license agreements with some of our licensors, the licensors may have the right to control enforcement of our licensed patents or defense of any claims asserting the invalidity of these patents and even if we are permitted to pursue such enforcement or defense, we will require the cooperation of our licensors. We cannot be certain that our licensors will allocate sufficient resources or prioritize their or our enforcement of such patents or defense of such claims to protect our interests in the licensed patents. Even if we are not a party to these legal actions, an adverse outcome could harm our business because it might prevent us from continuing to license intellectual property that we may need to operate our business.

Due to the patent laws of a country, or the decisions of a patent examiner in a country, or our own filing strategies, we may not obtain patent coverage for all of our product candidates or methods involving these candidates in the parent patent application.

If we fail to comply with our obligations in the agreements under which we license intellectual property rights from third parties or otherwise experience disruptions to our business relationships with our licensors, we could lose rights that are important to our business.

We are a party to a number of intellectual property license agreements that are important to our business 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 and other obligations on us. For example, under our exclusive license agreements with various universities and research institutions, we are required to use commercially reasonable efforts to engage in various development and commercialization activities with respect to licensed products, and must satisfy specified milestone and royalty payment obligations. If we fail to comply with our obligations under our agreements with any of these licensors, we may be subject to termination of the license agreement in whole or in part; increased financial obligations to our licensors or loss of exclusivity in a particular field or territory, in which case our ability to develop or commercialize products covered by the license agreement will be impaired. Additionally, we may be subject to royalty obligations to multiple licensors with respect to the same product. Our material license agreements are described in greater detail in the “Business—Our Material Technology License Agreements” section.

In addition, disputes may arise regarding intellectual property subject to a license agreement, including:

- the scope of rights granted under the license agreement and other interpretation-related issues;

- the extent to which our technology and processes infringe on intellectual property of the licensor that is not subject to the licensing agreement;
- our diligence obligations under the license agreement and what activities satisfy those obligations;
- if a third party expresses interest in an area under a license that we are not pursuing, under the terms of certain of our license agreements, we may be required to sublicense rights in that area to a third party, and that sublicense could harm our business; and
- the ownership of inventions and know-how resulting from the joint creation or use of intellectual property by our licensors and us.

If disputes over intellectual property that we have licensed prevent or impair our ability to maintain our current licensing arrangements on acceptable terms, we may be unable to successfully develop and commercialize the affected product candidates.

We may need to obtain licenses from third parties to advance our research or allow commercialization of our product candidates, and we have done so from time to time. We may fail to obtain any of these licenses at a reasonable cost or on reasonable terms, if at all. In that event, we would be unable to further develop and commercialize one or more of our product candidates, which could harm our business significantly.

We may incur substantial costs as a result of litigation or other proceedings relating to patent and other intellectual property rights.

If we choose to go to court to stop another party from using the inventions claimed in any patents we obtain, that individual or company has the right to ask the court to rule that such patents are invalid or should not be enforced against that third party. These lawsuits are expensive and would consume time and resources and divert the attention of managerial and scientific personnel even if we were successful in stopping the infringement of such patents. In addition, there is a risk that the court will decide that such patents are not valid and that we do not have the right to stop the other party from using the inventions. There is also the risk that, even if the validity of such patents is upheld, the court will refuse to stop the other party on the ground that such other party's activities do not infringe our rights to such patents. In addition, the U.S. Supreme Court has recently modified some tests used by the U.S. Patent and Trademark Office, or USPTO, in granting patents over the past 20 years, which may decrease the likelihood that we will be able to obtain patents and increase the likelihood of challenge of any patents we obtain or license.

We may infringe the intellectual property rights of others, which may prevent or delay our product development efforts and stop us from commercializing or increase the costs of commercializing our product candidates.

Our success will depend in part on our ability to operate without infringing the proprietary rights of third parties. We cannot guarantee that our products, or manufacture or use of our product candidates, will not infringe third-party patents. Furthermore, a third party may claim that we are using inventions covered by the third party's patent rights and may go to court to stop us from engaging in our normal operations and activities, including making or selling our product candidates. These lawsuits are costly and could affect our results of operations and divert the attention of managerial and scientific personnel. Some of these third parties may be better capitalized and have more resources than us. There is a risk that a court would decide that we are infringing the third party's patents and would order us to stop the activities covered by the patents. In that event, we may not have a viable way around the patent and may need to halt commercialization of the relevant product candidate. In addition, there is a risk that a court will order us to pay the other party damages for having violated the other party's patents. In addition, we may be obligated to indemnify our licensors and collaborators against certain intellectual property infringement claims brought by third parties, which could require us to expend additional resources. The pharmaceutical and biotechnology industries have produced a proliferation of patents, and it is not always clear to industry participants, including us, which patents cover various types of products or methods of use. The coverage of patents is subject to interpretation by the courts, and the interpretation is not always uniform.

If we are sued for patent infringement, we would need to demonstrate that our products or methods either do not infringe the patent claims of the relevant patent or that the patent claims are invalid, and we may not be able to do this. Proving invalidity is difficult. For example, in the United States, proving invalidity requires a showing of clear and convincing evidence to overcome the presumption of validity enjoyed by issued patents. Even if we are successful in these proceedings, we may incur substantial costs and divert management's time and attention in pursuing these proceedings, which could have a material adverse effect on us. If we are unable to avoid infringing the patent rights of others, we may be required to seek a license, which may not be available, defend an infringement action or challenge the validity of the patents in court. Patent litigation is costly and time consuming. We may not have sufficient resources to bring these actions to a successful conclusion. In addition, if we do not obtain a license, develop or obtain non-infringing technology, fail to defend an infringement action successfully or have infringed patents declared invalid, we may incur substantial monetary damages, encounter significant delays in bringing our product candidates to market and be precluded from manufacturing or selling our product candidates.

We cannot be certain that others have not filed patent applications for technology covered by our pending applications, or that we were the first to invent the technology, because:

- some patent applications in the United States may be maintained in secrecy until the patents are issued;
- patent applications in the United States are typically not published until 18 months after the priority date; and
- publications in the scientific literature often lag behind actual discoveries.

Our competitors may have filed, and may in the future file, patent applications covering technology similar to ours. Any such patent application may have priority over our patent applications, which could further require us to obtain rights to issued patents covering such technologies. If another party has filed a U.S. patent application on inventions similar to ours that claims priority to an application filed prior to March 16, 2013, we may have to participate in an interference proceeding declared by the USPTO to determine priority of invention in the United States. The costs of these proceedings could be substantial, and it is possible that such efforts would be unsuccessful if, unbeknownst to us, the other party had independently arrived at the same or similar invention prior to our own invention, resulting in a loss of our U.S. patent position with respect to such inventions. In addition, changes enacted on March 15, 2013 to the U.S. patent laws resulted in the United States changing from a "first to invent" country to a "first to file" country. As a result, we may lose the ability to obtain issued patent if a third party files with the patent office first. Other countries have similar laws that permit secrecy of patent applications, and may be entitled to priority over our applications in such jurisdictions.

Some of our competitors may be able to sustain the costs of complex patent litigation more effectively than we can because they have substantially greater resources. In addition, any uncertainties resulting from the initiation and continuation of any litigation could have a material adverse effect on our ability to raise the funds necessary to continue our operations.

If we are not able to adequately prevent disclosure of trade secrets and other proprietary information, the value of our technology and products could be significantly diminished.

We rely on trade secrets to protect our proprietary technologies, especially where we do not believe patent protection is appropriate or obtainable. However, trade secrets are difficult to protect. We rely in part on confidentiality agreements with our employees, consultants, outside scientific collaborators, sponsored researchers and other advisors to protect our trade secrets and other proprietary information. These agreements may not effectively prevent disclosure of confidential information and may not provide an adequate remedy in the event of unauthorized disclosure of confidential information. Furthermore, some of our license agreements require us to notify, and in some cases license back to the licensor, certain additional proprietary information or intellectual property that we developed using the rights licensed to us under these agreements. Any such licenses back to the licensor could allow our licensors to use that proprietary information or intellectual property in a manner that could harm our business. In addition, others may independently discover our trade secrets and proprietary information. For example, the FDA, as part of its Transparency Initiative, is currently considering

whether to make additional information publicly available on a routine basis, including information that we may consider to be trade secrets or other proprietary information, and it is not clear at the present time how the FDA's disclosure policies may change in the future, if at all. Costly and time-consuming litigation could be necessary to enforce and determine the scope of our proprietary rights, and failure to obtain or maintain trade secret protection could adversely affect our competitive business position.

We may be subject to claims that our employees, consultants or independent contractors have wrongfully used or disclosed alleged trade secrets.

As is common in the biotechnology and pharmaceutical industries, we employ individuals who were previously employed at other biotechnology or pharmaceutical companies, including our competitors or potential competitors. Although we try to ensure that our employees, consultants and independent contractors 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 our employees, consultants or independent contractors have inadvertently or otherwise used or disclosed trade secrets or other proprietary information of their former employers. Litigation may be necessary to defend against these claims. If we fail in defending any such claims, in addition to paying monetary damages, we could lose valuable intellectual property rights or personnel, which could adversely impact our business. Even if we are successful in defending against these claims, litigation could result in substantial costs and be a distraction to management.

Risks Related to the Commercialization of Our Product Candidates

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

We have no experience selling and marketing any products. To successfully commercialize any products that may result from our development programs, we will need to develop these capabilities, either on our own or with others. If any of our initial product candidates are approved for marketing, we intend to build an internal sales and marketing organization to commercialize these products in highly specialized target markets, where patient and physician communities are concentrated and product adoption is driven by key opinion leaders. However, we may not have adequate financial resources or expertise to build an effective sales and marketing organization.

We may selectively seek to enter into partnerships with other entities to utilize their marketing and distribution capabilities in larger target markets, but we may be unable to enter into these arrangements on favorable terms, if at all. If we are unable to develop adequate marketing capabilities on our own or effectively partner with third parties, we will be unable to generate revenues from our approved products. We will be competing with many companies that currently have extensive and well-funded marketing and sales operations. Without an internal team or the support of a third party to perform marketing and sales functions, we may be unable to compete successfully against these more established companies.

The commercial success of any current or future product candidates will depend upon the degree of market acceptance by physicians, patients, third-party payers and others in the medical community.

Ethical, social and legal concerns about stem cell therapies could result in additional regulations restricting or prohibiting the use of our product candidates. Even with the requisite approvals, the commercial success of our product candidates will depend in part on the medical community, patients and third-party payers accepting stem cell therapies in general, and our product candidates in particular, as medically useful, cost-effective and safe. Any product that we bring to the market may not gain market acceptance by physicians, patients, third-party payers and others in the medical community. If these products do not achieve an adequate level of acceptance, we may not generate significant product revenue and 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:

- the potential efficacy and potential advantages over alternative treatments;
- the prevalence and severity of any side effects, including any limitations or warnings contained in a product's approved labeling;

- the prevalence and severity of any side effects resulting from the chemotherapy and myeloablative treatments associated with the procedure by which our product candidates are administered;
- relative convenience and ease of administration;
- 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 and timing of market introduction of competitive products;
- publicity concerning our products or competing products and treatments; and
- sufficient third-party insurance coverage or reimbursement.

Even if a potential product displays a favorable efficacy and safety profile in preclinical studies and clinical trials, market acceptance of the product will not be known until after it is launched. Our efforts to educate the medical community and third-party payers on the benefits of the product candidates may require significant resources and may never be successful. Any failure to achieve market acceptance for our product candidates will harm our business, results and financial condition.

If we obtain approval to commercialize our product candidates outside of the United States, a variety of risks associated with international operations could materially adversely affect our business.

If any of our product candidates are approved for commercialization, we may enter into agreements with third parties to market them on a worldwide basis or in more limited geographical regions. We expect that we will be subject to additional risks related to entering into international business relationships, including:

- different regulatory requirements for approval of drugs and biologics in foreign countries;
- reduced or uncertain protection for our intellectual property rights;
- unexpected changes in tariffs, trade barriers and regulatory requirements;
- economic weakness, including inflation, or political instability in particular foreign economies and markets;
- compliance with tax, employment, immigration and labor laws for employees living or traveling abroad;
- foreign currency fluctuations, which could result in increased operating expenses and reduced revenues, and other obligations incident to doing business in another country;
- workforce uncertainty in countries where labor unrest is more common than in the United States;
- complexity and difficulty in coordinating the communications and operations of our business; and
- production shortages resulting from any events affecting raw material supply or manufacturing capabilities abroad.

We expect to face uncertainty regarding the pricing of ProHema and any other product candidates that we may develop. If pricing policies for our product candidates are unfavorable, our commercial success will be impaired.

Due to the targeted indication of HSCT procedures in general and our HSC product candidates in particular, we face significant uncertainty as to the pricing of any such products for which we may receive marketing approval. While we anticipate that pricing for these candidates will be relatively high due to their anticipated use in a one-time, potentially life-saving procedure with curative intent, the biopharmaceutical industry has recently experienced significant pricing pressures, including in the area of orphan drug products. Additionally, because our target patient populations are relatively small, the pricing and reimbursement of our product candidates, if approved, must be adequate to support commercial infrastructure. In addition, there are currently no approved products for the treatment of muscular dystrophies, and it is difficult to predict the level of reimbursement, if any, that would be available for any product candidates that we may develop in these indications. If pricing is set at unsatisfactory levels, our ability to successfully market and sell our product candidates will be adversely affected.

We may experience pricing pressures in connection with the sale of any of our product candidates due to the trend toward managed healthcare, the increasing influence of health maintenance organizations and additional legislative changes. The downward pressure on healthcare costs in general, particularly in the area of orphan drug products, has become very intense. These pricing pressures have imposed significant barriers to the entry of new products.

Outside the United States, international operations are generally subject to extensive governmental price controls and other market regulations, and we believe the increasing emphasis on cost-containment initiatives in Europe, Canada and other countries has and will continue to put pressure on the pricing and usage of our product candidates. In many countries, the prices of medical products are subject to varying price control mechanisms as part of national health systems. In general, the prices of medicines under such systems are substantially lower than in the United States. Other countries allow companies to fix their own prices for medicines, but monitor and control company profits. Additional foreign price controls or other changes in pricing regulation could restrict the amount that we are able to charge for our product candidates, which may adversely affect our ability to generate profit from the sales of our product candidates.

The insurance coverage and reimbursement status of newly-approved products is uncertain. Failure to obtain or maintain adequate coverage and reimbursement for new products could limit our ability to market any product that we may develop and decrease our ability to generate revenue.

The availability and extent of reimbursement by governmental and private payers is essential for most patients to be able to afford expensive treatments, such as stem cell transplants. Sales of our product candidates will depend substantially, both domestically and abroad, on the extent to which the costs of our product candidates will be paid by health maintenance, managed care, pharmacy benefit and similar healthcare management organizations, or reimbursed by government health administration authorities, private health coverage insurers and other third-party payers. There is significant uncertainty related to the insurance coverage and reimbursement of newly approved products. In particular, there is no body of established practices and precedents for reimbursement of modulated stem cell products, and it is difficult to predict what the regulatory authority or private payer will decide with respect to reimbursement levels for novel products such as ours. Our products may not qualify for coverage or direct reimbursement and may be subject to limited reimbursement. Stem cell transplant procedures are typically covered by one-time reimbursement, generally available for a limited number of days after transplant. If reimbursement or insurance coverage is not available, or is available only to limited levels, we may not be able to successfully commercialize our product candidates. Even if coverage is provided, the approved reimbursement amount may not be sufficient to allow us to establish or maintain pricing to generate income.

In addition, reimbursement agencies in foreign jurisdictions may be more conservative than those in the United States. Accordingly, in markets outside the United States, the reimbursement for our products may be reduced compared with the United States and may be insufficient to generate commercially reasonable revenues and profits. Moreover, increasing efforts by governmental and third-party payers, in the United States and abroad, to cap or reduce healthcare costs may cause such organizations to limit both coverage and level of reimbursement for new products approved and, as a result, they may not cover or provide adequate payment for our product candidates. Failure to obtain or maintain adequate reimbursement for any products for which we receive marketing approval will adversely impact our ability to achieve commercial success.

If the market opportunities for our product candidates are smaller than we believe they are, our revenues may be adversely affected and our business may suffer. Because the target patient populations of our product candidates are small, we must be able to successfully identify patients and capture a significant market share to achieve and maintain profitability.

We focus our research and product development on treatments for orphan hematologic malignancies, rare genetic disorders and muscular dystrophies. Our projections of both the number of people who have these diseases, as well as the subset of people with these diseases who have the potential to benefit from treatment with our product candidates, are based on estimates. These estimates may prove to be incorrect and new studies may change the estimated incidence or prevalence of these diseases. The number of patients in the United States, Europe and

elsewhere may turn out to be lower than expected or may not be otherwise amenable to treatment with our products, or new patients may become increasingly difficult to identify or gain access to, all of which would adversely affect our results of operations and our business. Additionally, because our target patient populations are small, we will be required to capture a significant market share to achieve and maintain profitability.

Risks Related to Our Business and Industry

The success of our HSC and SSC modulation platforms and our product candidates is substantially dependent on developments within the emerging field of stem cell therapies, some of which are beyond our control.

Our HSC and SSC modulation platforms and our product candidates are designed to optimize the biological activity of adult stem cells, which represents a novel development within the field of stem cell therapeutics. Stem cell therapies in turn represent a relatively new therapeutic area that presents a number of scientific, clinical, regulatory and ethical challenges. Any adverse developments in the field of stem cell therapeutics generally, and in the practice of HSCT in particular, will negatively impact our ability to develop and commercialize our product candidates. In particular, we currently anticipate that ProHema and any additional product candidates that we develop from our HSC modulation platform would be adopted into the current standard of care for HSCT procedures. If the market for HSCT procedures declines or fails to grow at anticipated levels for any reason, or if the development and commercialization of therapies targeted at the underlying cause of diseases addressed by ProHema obviate the need for patients to undergo HSCT procedures, our business prospects will be significantly harmed.

We face competition from other biotechnology and pharmaceutical companies, and our operating results will suffer if we fail to compete effectively.

The biotechnology and pharmaceutical industries are intensely competitive and subject to rapid and significant technological change. We face competition from major multinational pharmaceutical companies, established and early-stage biotechnology companies, and universities and other research institutions. Many of our competitors have greater financial and other resources, such as larger research and development staff and more experienced marketing and manufacturing organizations. Large pharmaceutical companies, in particular, have extensive experience in clinical testing, obtaining regulatory approvals, recruiting patients and manufacturing pharmaceutical products. These companies also have significantly greater research, sales and marketing capabilities and collaborative arrangements in our target markets with leading companies and research institutions. Established pharmaceutical companies may also invest heavily to accelerate discovery and development of novel therapeutics or to in-license novel therapeutics that could make the product candidates that we develop obsolete. As a result of all of these factors, our competitors may succeed in obtaining patent protection or FDA approval or discovering, developing and commercializing treatments in the rare disease indications that we are targeting before we do. Smaller or early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large, established companies.

There are several clinical-stage development programs that seek to improve human umbilical cord blood transplantation through the use of *ex vivo* expansion technologies to increase the quantity of HSCs for use in HSCT or the use of *ex vivo* differentiation technologies to increase the quantity of hematopoietic progenitor cells for use in HSCT. Although there are currently no approved pharmaceutical products specifically for the treatment of muscular dystrophies, we are aware of several other companies with product candidates in various stages of development for the treatment of muscular dystrophies. In addition, many universities and private and public research institutes may develop technologies of interest to us, but license them to our competitors. Our competitors may succeed in developing, acquiring or licensing on an exclusive basis, technologies and drug products that are more effective or less costly than ProHema or any other product candidates that we are currently developing or that we may develop, which could render our products obsolete and noncompetitive.

We believe that our ability to successfully compete will depend on, among other things:

- the results of our clinical trials;
- our ability to recruit and enroll patients for our clinical trials;

- the efficacy, safety and reliability of our product candidates;
- the speed at which we develop our product candidates;
- our ability to design and successfully execute appropriate clinical trials;
- our ability to protect and develop intellectual property rights related to our products;
- our ability to maintain a good relationship with regulatory authorities;
- the timing and scope of regulatory approvals, if any;
- our ability to commercialize and market any of our product candidates that receive regulatory approval;
- market perception and acceptance of stem cell therapeutics;
- acceptance of our product candidates by physicians and institutions that perform HSCTs;
- the price of our products;
- adequate levels of reimbursement under private and governmental health insurance plans, including Medicare; and
- our ability to manufacture and sell commercial quantities of any approved products to the market.

If our competitors market products that are more effective, safer or less expensive than our future products, if any, or that reach the market sooner than our future products, if any, we may not achieve commercial success. In addition, the biopharmaceutical industry is characterized by rapid technological change.

We may need to expand our operations and increase the size of our company, and we may experience difficulties in managing growth.

As we increase the number of ongoing product development programs and advance our product candidates through preclinical studies and clinical trials, we will need to increase our product development, scientific and administrative headcount to manage these programs. Our management, personnel and systems currently in place may not be adequate to support this future growth. Our need to effectively manage our operations, growth and various projects requires that we:

- successfully attract and recruit new employees or consultants with the requisite expertise and experience;
- manage our clinical programs effectively;
- if we receive regulatory approval for any product candidate, develop a marketing and sales infrastructure; and
- continue to improve our operational, financial and management controls, reporting systems and procedures, including those related to being a public company.

If we are unable to successfully manage this growth and increased complexity of operations, our business may be adversely affected.

We may not be able to manage our business effectively if we are unable to attract and retain key personnel and consultants.

We may not be able to attract or retain qualified management, finance, scientific and clinical personnel and consultants due to the intense competition for qualified personnel and consultants among biotechnology, pharmaceutical and other businesses. If we are not able to attract and retain necessary personnel and consultants to accomplish our business objectives, we may experience constraints that will significantly impede the achievement of our development objectives, our ability to raise additional capital and our ability to implement our business strategy.

Our industry has experienced a high rate of turnover of management personnel in recent years. We are highly dependent on the development, regulatory, commercialization and business development expertise of Christian

Weyer, our President and Chief Executive Officer; J. Scott Wolchko, our Chief Financial Officer and Chief Operating Officer; Pratik S. Multani, our Chief Medical Officer; Daniel D. Shoemaker, our Chief Technology Officer; and Peter Flynn, our Senior Vice President, Early Program Development. If we lose one or more of our executive officers or key consultants, our ability to implement our business strategy successfully could be seriously harmed. While we have entered into employment contracts with each of our executive officers, any of them could leave our employment at any time, as all of our employees are at-will employees. Replacing key personnel and consultants may be difficult and may take an extended period of time because of the limited number of individuals in our industry with the breadth of skills and experience required to develop, gain regulatory approval of and commercialize products successfully. Competition to hire and retain employees and consultants from this limited pool is intense, and we may be unable to hire, train, retain or motivate these additional key personnel and consultants. Our failure to retain key personnel or consultants could materially harm our business.

We rely on our scientific founders and other scientific and clinical advisors and consultants to assist us in formulating our research, development and clinical strategies. These advisors and consultants are not our employees and may have commitments to, or consulting or advisory contracts with, other entities that may limit their availability to us. In addition, these advisors and consultants typically will not enter into non-compete agreements with us. If a conflict of interest arises between their work for us and their work for another entity, we may lose their services. Furthermore, our advisors may have arrangements with other companies to assist those companies in developing products or technologies that may compete with ours. In particular, if we are unable to maintain consulting relationships with our scientific founders or if they provide services to our competitors, our development and commercialization efforts will be impaired and our business will be significantly harmed.

Failure to build our finance infrastructure and improve our accounting systems and controls could impair our ability to comply with the financial reporting and internal controls requirements for publicly traded companies.

As a public company, we will operate in an increasingly demanding regulatory environment, which requires us to comply with the Sarbanes-Oxley Act of 2002, as amended, or the Sarbanes-Oxley Act, and the related rules and regulations of the SEC, expanded disclosure requirements, accelerated reporting requirements and more complex accounting rules. Company responsibilities required by the Sarbanes-Oxley Act include establishing corporate oversight and adequate internal control over financial reporting and disclosure controls and procedures. Effective internal controls are necessary for us to produce reliable financial reports and are important to help prevent financial fraud.

We cannot assure you that we will not have material weaknesses or significant deficiencies in our internal control over financial reporting. If we are unable to successfully remediate any material weakness or significant deficiency in our internal control over financial reporting, or identify any material weaknesses or significant deficiencies that may exist, the accuracy and timing of our financial reporting may be adversely affected, we may be unable to maintain compliance with securities law requirements regarding timely filing of periodic reports in addition to applicable stock exchange listing requirements, and our stock price may decline materially as a result.

We have begun implementing our system of internal controls over financial reporting and preparing the documentation necessary to perform the evaluation needed to comply with Section 404(a) of the Sarbanes-Oxley Act. However, we anticipate that we will need to retain additional finance capabilities and build our financial infrastructure as we transition to operating as a public company, including complying with the requirements of Section 404 of the Sarbanes-Oxley Act. As we begin operating as a public company following this offering, we will need to continue improving our financial infrastructure with the retention of additional financial and accounting capabilities, the enhancement of internal controls and additional training for our financial and accounting staff.

Section 404(a) of the Sarbanes-Oxley Act requires annual management assessments of the effectiveness of our internal control over financial reporting, starting with the second annual report that we would expect to file with the SEC. However, for as long as we remain an “emerging growth company” as defined in the JOBS Act, we intend to take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not “emerging growth companies” including, but not limited to, not being required to comply with the auditor attestation requirements of Section 404(b) of the Sarbanes-Oxley Act. We

may take advantage of these reporting exemptions until we are no longer an "emerging growth company." We will remain an "emerging growth company" until the earliest of (i) the last day of the fiscal year in which we have total annual gross revenues of $1 billion or more; (ii) the last day of our fiscal year following the fifth anniversary of the date of the completion of this offering; (iii) the date on which we have issued more than $1 billion in nonconvertible debt during the previous three years; or (iv) the date on which we are deemed to be a large accelerated filer under the rules of the SEC.

Until we are able to expand our finance and administrative capabilities and establish necessary financial reporting infrastructure, we may not be able to prepare and disclose, in a timely manner, our financial statements and other required disclosures or comply with the Sarbanes-Oxley Act or existing or new reporting requirements. If we cannot provide reliable financial reports or prevent fraud, our business and results of operations could be harmed and investors could lose confidence in our reported financial information.

Our insurance policies are expensive and only protect us from some business risks, which will leave us exposed to significant uninsured liabilities.

We do not carry insurance for all categories of risk that our business may encounter. Some of the policies we currently maintain include general liability, employment practices liability, property, products liability and directors' and officers' insurance. We do not know, however, if we will be able to maintain insurance with adequate levels of coverage. Any significant uninsured liability may require us to pay substantial amounts, which would adversely affect our financial position and results of operations.

If we engage in an acquisition, reorganization or business combination, we will incur a variety of risks that could adversely affect our business operations or our stockholders.

From time to time we have considered, and we will continue to consider in the future, strategic business initiatives intended to further the expansion and development of our business. These initiatives may include acquiring businesses, technologies or products or entering into a business combination with another company. If we pursue such a strategy, we could, among other things:

- issue equity securities that would dilute our current stockholders' percentage ownership;
- incur substantial debt that may place strains on our operations;
- spend substantial operational, financial and management resources to integrate new businesses, technologies and products;
- assume substantial actual or contingent liabilities;
- reprioritize our development programs and even cease development and commercialization of our product candidates; or
- merge with, or otherwise enter into a business combination with, another company in which our stockholders would receive cash or shares of the other company on terms that certain of our stockholders may not deem desirable.

Although we intend to evaluate and consider acquisitions, reorganizations and business combinations in the future, we have no agreements or understandings with respect to any acquisition, reorganization or business combination at this time.

We face potential product liability and, if successful claims are brought against us, we may incur substantial liability and costs. If the use of our product candidates harms patients, or is perceived to harm patients even when such harm is unrelated to our product candidates, our regulatory approvals could be revoked or otherwise negatively impacted and we could be subject to costly and damaging product liability claims.

The use of our product candidates in clinical trials and the sale of any products for which we obtain marketing approval exposes us to the risk of product liability claims. Product liability claims might be brought against us by participants in clinical trials, consumers, healthcare providers, pharmaceutical companies or others

selling or otherwise coming into contact with our product candidates and any products for which we obtain marketing approval. There is a risk that our product candidates may induce adverse events. If we cannot successfully defend against product liability claims, we could incur substantial liability and costs. In addition, regardless of merit or eventual outcome, product liability claims may result in:

- impairment of our business reputation;
- withdrawal of clinical trial participants;
- costs due to related litigation;
- distraction of management's attention from our primary business;
- substantial monetary awards to patients or other claimants;
- the inability to commercialize our product candidates; and
- decreased demand for our product candidates, if approved for commercial sale.

We carry product liability insurance of $5.0 million per occurrence and $5.0 million aggregate limit. We believe our product liability insurance coverage is sufficient in light of our current clinical programs; however, we may not be able to maintain insurance coverage at a reasonable cost or in sufficient amounts to protect us against losses due to liability. If and when we obtain marketing approval for product candidates, we intend to expand our insurance coverage to include the sale of commercial products; however, we may be unable to obtain product liability insurance on commercially reasonable terms or in adequate amounts. On occasion, large judgments have been awarded in class action lawsuits based on drugs or medical treatments that had unanticipated adverse effects. In addition, under some of our agreements with clinical trial sites, we are required to indemnify the sites and their personnel against product liability and other claims. A successful product liability claim or series of claims brought against us or any third parties whom we are required to indemnify could cause our stock price to decline and, if judgments exceed our insurance coverage, could adversely affect our results of operations and business.

Patients with the diseases targeted by our product candidates are often already in severe and advanced stages of disease and have both known and unknown significant pre-existing and potentially life-threatening health risks. During the course of treatment, patients may suffer adverse events, including death, for reasons that may be related to our product candidates. Such events could subject us to costly litigation, require us to pay substantial amounts of money to injured patients, delay, negatively impact or end our opportunity to receive or maintain regulatory approval to market our products, or require us to suspend or abandon our commercialization efforts. Even in a circumstance in which we do not believe that an adverse event is related to our products, the investigation into the circumstance may be time-consuming or inconclusive. These investigations may interrupt our development and commercialization efforts, delay our regulatory approval process, or impact and limit the type of regulatory approvals our product candidates receive or maintain. As a result of these factors, a product liability claim, even if successfully defended, could have a material adverse effect on our business, financial condition or results of operations.

We may use our financial and human resources to pursue a particular research program or product candidate and fail to capitalize on programs or product candidates that may be more profitable or for which there is a greater likelihood of success.

Because we have limited resources, we may forego or delay pursuit of opportunities with certain programs or product candidates or for 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 for product candidates 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 strategic 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, or we may allocate internal resources to a product candidate in a therapeutic area in which it would have been more advantageous to enter into a partnering arrangement.

We use hazardous chemicals, biological materials and infectious agents in our business. Any claims relating to improper handling, storage or disposal of these materials could be time consuming and costly.

Our research and development and manufacturing processes involve the controlled use of hazardous materials, including chemicals, biological materials and infectious disease agents. Our operations produce hazardous waste products. We cannot eliminate the risk of accidental contamination or discharge and any resultant injury from these materials. We may be sued for any injury or contamination that results from our use or the use by third parties of these materials, and our liability may exceed our insurance coverage and our total assets. Federal, state and local laws and regulations govern the use, manufacture, storage, handling and disposal of these hazardous materials and specified waste products, as well as the discharge of pollutants into the environment and human health and safety matters. Compliance with environmental laws and regulations may be expensive and may impair our research, development and production efforts. If we fail to comply with these requirements, we could incur substantial costs, including civil or criminal fines and penalties, clean-up costs or capital expenditures for control equipment or operational changes necessary to achieve and maintain compliance. In addition, we cannot predict the impact on our business of new or amended environmental laws or regulations or any changes in the way existing and future laws and regulations are interpreted and enforced.

Our business is subject to the risks of earthquakes, fire, power outages, floods and other catastrophic events, and to interruption by manmade problems such as terrorism.

A significant natural disaster, such as an earthquake, fire or a flood, or a significant power outage could have a material adverse impact on our business, operating results and financial condition. Our corporate headquarters are located in San Diego, California, a region known for seismic activity. In addition, natural disasters could affect our third-party service providers' ability to perform services for us on a timely basis. If these third parties do not successfully carry out their contractual duties or meet expected deadlines, our efforts to obtain regulatory approvals for, and to commercialize, our product candidates may be delayed or prevented. In addition, if a catastrophe such as an earthquake, fire, flood or power loss should affect one of the third parties on which we rely, our business prospects could be harmed. For example, if a central laboratory holding all of our clinical study samples were to suffer a catastrophic loss of their facility, we would lose all of our samples and would have to repeat our studies. In addition, acts of terrorism could cause disruptions in our business or the business of our third-party service providers, partners, customers or the economy as a whole.

Our employees may engage in misconduct or other improper activities, including noncompliance with regulatory standards and requirements and insider trading.

We are exposed to the risk of employee fraud or other misconduct. Misconduct by employees could include intentional failures to comply with the regulations of the FDA or foreign regulators, provide accurate information to the FDA or foreign regulators, comply with healthcare fraud and abuse laws and regulations in the United States and abroad, report financial information or data accurately or disclose unauthorized activities to us. In particular, sales, marketing and business arrangements in the healthcare industry are subject to extensive laws and regulations intended to prevent fraud, misconduct, kickbacks, self-dealing and other abusive practices. These laws and regulations may restrict or prohibit a wide range of pricing, discounting, marketing and promotion, sales commission, customer incentive programs and other business arrangements. Employee misconduct could also involve the improper use of information obtained in the course of clinical trials, which could result in regulatory sanctions and cause serious harm to our reputation. We will adopt a code of conduct prior to the completion of this offering, but it is not always possible to identify and deter employee misconduct, and the precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to comply with these laws or regulations. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business, including the imposition of significant fines or other sanctions.

Risks Related to This Offering and Ownership of Our Common Stock

An active trading market for our common stock may not develop, and you may not be able to resell your shares at or above the initial public offering price.

Prior to this offering, there has been no public market for shares of our common stock. Although we anticipate our common stock being approved for listing on The NASDAQ Global Market, an active trading market for our shares may never develop or be sustained following this offering. The initial public offering price of our common stock will be determined through negotiations between us and the underwriters. This initial public offering price may not be indicative of the market price of our common stock after this offering. In the absence of an active trading market for our common stock, investors may not be able to sell their common stock at or above the initial public offering price or at the time that they would like to sell.

We expect that our stock price may fluctuate significantly.

The market price of shares of our common stock could be subject to wide fluctuations as a result of many risks listed in this section, and others beyond our control, including:

- the timing of the initiation or completion of our clinical trials;
- the results of our clinical trials and preclinical studies;
- the results of clinical trials of our competitors' product candidates or of other stem cell therapies in general;
- developments concerning our owned or licensed intellectual property rights;
- changes in laws or regulations applicable to stem cell therapies generally or our product candidates in particular, including but not limited to clinical trial requirements for approvals;
- changes in the markets for HSCT products and in the field of stem cell therapeutics, or changes in the markets for the treatment of muscular dystrophies and other diseases targeted by our product candidates;
- actual or anticipated fluctuations in our financial condition and operating results;
- actual or anticipated changes in our growth rate relative to our competitors;
- competition from existing products or new products that may emerge;
- announcements by us or our competitors of significant acquisitions, strategic partnerships, joint ventures, collaborations or capital commitments;
- failure to meet or exceed financial estimates and projections of the investment community or that we provide to the public;
- issuance of new or updated research or reports by securities analysts;
- fluctuations in the valuation of companies perceived by investors to be comparable to us;
- share price and volume fluctuations attributable to inconsistent trading volume levels of our shares;
- additions or departures of key management or scientific personnel;
- disputes or other developments related to proprietary rights, including patents, litigation matters and our ability to obtain patent protection for our technologies;
- announcements or expectations of additional debt or equity financing efforts;
- sales of our common stock by us, our insiders or our other stockholders; and
- general economic and market conditions.

These and other market and industry factors may cause the market price and demand for our common stock to fluctuate substantially, regardless of our actual operating performance, which may limit or prevent investors

from readily selling their shares of common stock and may otherwise negatively affect the liquidity of our common stock. In addition, the stock market in general, and The NASDAQ Global Market and pharmaceutical companies in particular, have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of these companies. In the past, when the market price of a stock has been volatile, holders of that stock have instituted securities class action litigation against the company that issued the stock. If any of our stockholders brought a lawsuit against us, we could incur substantial costs defending the lawsuit and divert the time and attention of our management.

Our principal stockholders will exercise significant control over our company.

Immediately after this offering, our executive officers, directors and entities affiliated with our five percent stockholders will beneficially own, in the aggregate, shares representing approximately % of our outstanding voting stock. Although we are not aware of any voting arrangements that will be in place among these stockholders following this offering, if these stockholders were to choose to act together, as a result of their stock ownership, they would be able to influence our management and affairs and control all matters submitted to our stockholders for approval, including the election of directors and approval of any merger, consolidation or sale of all or substantially all of our assets. This concentration of ownership may have the effect of delaying or preventing a change in control of our company and might affect the market price of our common stock.

Future sales of shares by existing stockholders could cause our stock price to decline.

If our existing stockholders sell, or indicate an intent to sell, substantial amounts of our common stock in the public market after the 180-day contractual lock-up and other legal restrictions on resale discussed in this prospectus lapse, the trading price of our common stock could decline significantly and could decline below the initial public offering price. Based on shares outstanding as of , 2013, upon the completion of this offering, we will have outstanding shares of common stock, assuming no exercise of outstanding options. Of these shares, shares of common stock, plus any shares sold pursuant to the underwriters' option to purchase additional shares, will be immediately freely tradable, without restriction, in the public market. The underwriters may, in their discretion and under the terms of the lock-up agreements, permit our officers, directors, employees and current stockholders to sell some or all of their shares prior to the expiration of the lock-up agreements. We cannot predict the effect, if any, that public sales of these shares or the availability of these shares for sale will have on the market price of our common stock.

After the lock-up agreements pertaining to this offering expire and based on shares outstanding as of , 2013, an additional shares will be eligible for sale in the public market. In addition, the shares subject to outstanding options under our equity incentive plans and the shares reserved for future issuance under our equity incentive plans will become eligible for sale in the public market in the future, subject to certain legal and contractual limitations. Moreover, 180 days after the completion of this offering, certain holders of our common stock will have the right to require us to register these shares under the Securities Act of 1933, as amended, or the Securities Act, pursuant to an investor rights agreement. If our existing stockholders sell substantial amounts of our common stock in the public market, or if the public perceives that such sales could occur, this could have an adverse impact on the market price of our common stock, even if there is no relationship between such sales and the performance of our business.

We will have broad discretion in how we use the proceeds of this offering. We may not use these proceeds effectively, which could affect our results of operations and cause our stock price to decline.

We will have considerable discretion in the application of the net proceeds of this offering. As a result, investors will be relying upon management's judgment with only limited information about our specific intentions for the use of the balance of the net proceeds of this offering. We may use the net proceeds for purposes that do not yield a significant return or any return at all for our stockholders. In addition, pending their use, we may invest the net proceeds from this offering in a manner that does not produce income or that loses value.

Being a public company will increase our expenses and administrative burden.

As a public company, we will incur significant legal, insurance, accounting and other expenses that we did not incur as a private company. In addition, our administrative staff will be required to perform additional tasks. For example, in anticipation of becoming a public company, we will need to adopt additional internal controls and disclosure controls and procedures, retain a transfer agent, adopt an insider trading policy and bear all of the internal and external costs of preparing and distributing periodic public reports in compliance with our obligations under the securities laws.

In addition, laws, regulations and standards applicable to public companies relating to corporate governance and public disclosure, including the Sarbanes-Oxley Act and related regulations implemented by the SEC and The NASDAQ Stock Market, are creating uncertainty for public companies, increasing legal and financial compliance costs and making some activities more time consuming. These laws, regulations and standards are subject to varying interpretations, in many cases due to their lack of specificity, and, as a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies. This could result in continuing uncertainty regarding compliance matters and higher costs necessitated by ongoing revisions to disclosure and governance practices. We intend to invest resources to comply with evolving laws, regulations and standards, and this investment will result in increased general and administrative expenses and may divert management's time and attention from product development activities. If our efforts to comply with new laws, regulations and standards differ from the activities intended by regulatory or governing bodies due to ambiguities related to practice, regulatory authorities may initiate legal proceedings against us and our business may be harmed. In connection with this offering, we are increasing our directors' and officers' insurance coverage, which will increase our insurance cost. In the future, it will be more expensive for us to obtain director and officer liability insurance, and we may be required to accept reduced coverage or incur substantially higher costs to obtain coverage. These factors could also make it more difficult for us to attract and retain qualified members of our board of directors, particularly to serve on our audit committee and compensation committee, and qualified executive officers.

Provisions of Delaware law or our charter documents could delay or prevent an acquisition of our company, even if the acquisition would be beneficial to our stockholders, and could make it more difficult for you to change management.

Provisions of Delaware law and our amended and restated certificate of incorporation and amended and restated bylaws, which will be effective upon the completion of this offering, may discourage, delay or prevent a merger, acquisition or other change in control that stockholders may consider favorable, including transactions in which stockholders might otherwise receive a premium for their shares. These provisions may also prevent or delay attempts by stockholders to replace or remove our current management or members of our board of directors. These provisions include:

- a classified board of directors with limitations on the removal of directors;
- advance notice requirements for stockholder proposals and nominations;
- the inability of stockholders to act by written consent or to call special meetings;
- the ability of our board of directors to make, alter or repeal our amended and restated bylaws: and
- the authority of our board of directors to issue preferred stock with such terms as our board of directors may determine.

The affirmative vote of the holders of at least 75% of our shares of capital stock entitled to vote, and not less than 75% of the outstanding shares of each class entitled to vote thereon as a class, is generally necessary to amend or repeal the above provisions that are contained in our amended and restated certificate of incorporation. In addition, absent approval of our board of directors, our amended and restated bylaws may only be amended or repealed by the affirmative vote of the holders of at least 75% of our shares of capital stock entitled to vote.

In addition, upon the completion of this offering, we will be subject to the provisions of Section 203 of the Delaware General Corporation Law, which limits business combination transactions with stockholders of 15% or more of our outstanding voting stock that our board of directors has not approved. These provisions and other similar provisions make it more difficult for stockholders or potential acquirers to acquire us without negotiation. These provisions may apply even if some stockholders may consider the transaction beneficial to them.

As a result, these provisions could limit the price that investors are willing to pay in the future for shares of our common stock. These provisions might also discourage a potential acquisition proposal or tender offer, even if the acquisition proposal or tender offer is at a premium over the then-current market price for our common stock.

We are an "emerging growth company" and will be able to avail ourselves of reduced disclosure requirements applicable to emerging growth companies, which could make our common stock less attractive to investors.

We are an "emerging growth company," as defined in the JOBS Act, and we intend to take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not "emerging growth companies," including not being required to comply with the auditor attestation requirements of Section 404(b) of the Sarbanes-Oxley Act, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and shareholder approval of any golden parachute payments not previously approved. We cannot predict if investors will find our common stock less attractive because we may rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile.

Investors in this offering will pay a higher price than the book value of our common stock.

If you purchase common stock in this offering, you will pay more for your shares than the amounts paid by existing stockholders for their shares. You will incur immediate and substantial dilution of $ per share, representing the difference between our pro forma as adjusted net tangible book value per share after giving effect to this offering and an assumed initial public offering price of $ per share, the midpoint of the price range set forth on the cover of this prospectus. In the past, we have issued restricted stock and options and warrants to acquire shares of our capital stock at prices significantly below the assumed initial public offering price. In addition, we will be obligated, upon the occurrence of certain milestone events or a change of control, to issue additional shares of common stock to the holders of exchangeable shares of our subsidiary, Fate Canada, in the future for no additional consideration. To the extent any outstanding options or warrants are ultimately exercised or we issue additional shares of common stock to the holders of exchangeable shares of our subsidiary, you will sustain further dilution.

If equity research analysts do not publish research or reports about our business or if they issue unfavorable commentary or downgrade our common stock, the price of our common stock could decline.

The trading market for our common stock will rely in part on the research and reports that equity research analysts publish about us and our business. We do not control these analysts. The price of our common stock could decline significantly if one or more equity analysts downgrade our common stock or if analysts issue other unfavorable commentary or cease publishing reports about us or our business.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, including the sections entitled "Prospectus Summary," "Risk Factors," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Business" contains forward-looking statements that are based on our management's belief and assumptions and on information currently available to our management. Although we believe that the expectations reflected in these forward-looking statements are reasonable, these statements relate to future events or our future financial performance, and involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to be materially different from any future results, levels of activity, performance or achievements expressed or implied by these forward-looking statements. Forward-looking statements in this prospectus include, but are not limited to, statements about:

- the projected timing on the initiation and commencement of our clinical trials for our product candidates;
- our plans to amend our IND for our Phase 2 clinical trial of ProHema in adults undergoing double umbilical cord blood transplant, or UCBT;
- our ability to obtain consent from the FDA to incorporate the use of our NRM formulation in our Phase 2 clinical trial or any subsequent clinical trials of ProHema;
- our plans to resume enrollment in our Phase 2 clinical trial of ProHema or to commence other clinical trials of ProHema;
- our plans to complete the preclinical development of and to submit an IND for our Wnt7a analogs;
- our ability to satisfy regulatory requirements with respect to ProHema and our other product candidates, many of which are new and still evolving;
- the ability of cell processing facilities operated by transplant centers to consistently manufacture ProHema under the proper conditions;
- the performance of third-party service providers and independent contractors upon whom we rely to conduct our clinical trials and to manufacture our product candidates or certain components of our product candidates;
- our ability to discover, develop and commercialize innovative therapies using our proprietary platforms;
- our ability to develop sales and marketing capabilities or to enter into strategic partnerships to develop and commercialize ProHema or any of our other product candidates;
- the timing and success of the commercialization of ProHema or any of our other product candidates;
- the degree of market acceptance of stem cell based therapies in general and our product candidates in particular;
- the size and growth of the potential markets for our product candidates and our ability to serve those markets;
- regulatory developments in the United States and foreign countries;
- our ability to obtain, maintain, defend and enforce intellectual property rights protecting our product candidates; and
- the accuracy of our estimates regarding expenses and capital requirements and the use of proceeds from this offering.

In some cases, you can identify forward-looking statements by terminology such as "may," "will," "should," "expects," "intends," "plans," "anticipates," "believes," "estimates," "predicts," "potential," "continue" or the negative of these terms or other comparable terminology. These statements are only predictions. You should not place undue reliance on forward-looking statements because they involve known and unknown risks, uncertainties and other factors, which are, in some cases, beyond our control and which could materially affect

results. Factors that may cause actual results to differ materially from current expectations include, among other things, those listed under “Risk Factors” and elsewhere in this prospectus. If one or more of these risks or uncertainties occur, or if our underlying assumptions prove to be incorrect, actual events or results may vary significantly from those implied or projected by the forward-looking statements. No forward-looking statement is a guarantee of future performance. You should read this prospectus and the documents that we reference in this prospectus and have filed with the SEC 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 any future results expressed or implied by these forward-looking statements.

The forward-looking statements in this prospectus represent our views as of the date of this prospectus. We anticipate that subsequent events and developments will cause our views to change. However, while we may elect to update these forward-looking statements at some point in the future, we have no current intention of doing so except to the extent required by applicable law. You should therefore not rely on these forward-looking statements as representing our views as of any date subsequent to the date of this prospectus.

The market data and certain other statistical information used throughout this prospectus are based on independent industry publications, governmental publications, reports by market research firms or other independent sources. Some data are also based on our good faith estimates.

USE OF PROCEEDS

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

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

We currently expect to use the net proceeds from this offering, together with our existing cash and cash equivalents, as follows:

- approximately $ million to fund research and development activities to advance our HSC modulation platform and the clinical and preclinical development of its product candidates, including the conduct of our Phase 2 clinical trial of ProHema in patients with orphan hematologic malignancies;
- approximately $ million to fund research and development activities to advance our SSC modulation platform and the preclinical development of its product candidates, including the conduct of preclinical studies of our Wnt7a analog product candidates; and
- the remainder for working capital and general corporate purposes, including funding the costs of operating as a public company.

The expected use of net proceeds from this offering represents our intentions based upon our current plans and business conditions, which could change in the future as our plans and business conditions evolve. The amounts and timing of our actual expenditures may vary significantly depending on numerous factors, including the progress of our development, the status of and results from clinical trials and preclinical studies, 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.

Pending these uses, we intend to invest the net proceeds in high quality, investment grade instruments, certificates of deposit or direct or guaranteed obligations of the U.S. government, or hold as cash.

DIVIDEND POLICY

We have never declared or paid any dividends on our capital stock. We currently intend to retain all available funds and any future earnings, if any, to fund the development and expansion of our business and we do not anticipate paying any cash dividends in the foreseeable future. Any future determination to pay dividends will be made at the discretion of our board of directors.

CAPITALIZATION

The following table sets forth our cash and cash equivalents and capitalization as of March 31, 2013:

- on an actual basis;
- on a pro forma basis to give effect to (i) the filing and effectiveness of our amended and restated certificate of incorporation, (ii) the conversion of all outstanding shares of our convertible preferred stock into an aggregate of 46,992,394 shares of common stock immediately prior to the completion of this offering, (iii) the issuance of 2,625,000 shares of common stock pursuant to the redemption of an aggregate of 900,000 exchangeable shares of Fate Canada as described in "Description of Capital Stock—Exchangeable Shares in Canadian Subsidiary" elsewhere in this prospectus, which will occur immediately prior to the completion of this offering, and the resultant reclassification of our exchangeable share liability to additional paid-in capital, a component of stockholders' equity and (iv) the adjustment of our outstanding warrants to purchase 230,000 shares of convertible preferred stock into warrants to purchase 234,482 shares of common stock upon the completion of this offering, and the resultant reclassification of our warrant liability to additional paid-in capital, a component of stockholders' equity; and
- on a pro forma as adjusted basis to give further effect to our sale in this offering of shares of common stock at an assumed initial public offering price of $ per share (the midpoint of the price range set forth on the cover page of this prospectus), after deducting the underwriting discounts and commissions and estimated offering expenses payable by us.

The pro forma as adjusted information below is illustrative only and our cash and cash equivalents and capitalization following the completion 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 the following table together with "Management's Discussion and Analysis of Financial Condition and Results of Operations," "Description of Capital Stock," and the financial statements and related notes appearing elsewhere in this prospectus.

	As of March 31, 2013		
	Actual	Pro Forma (unaudited)	Pro Forma As Adjusted[1]
	(in thousands, except per share data)		
Cash and cash equivalents	$ 4,647	$ 4,647	$
Capitalization:			
Long-term debt (including current portion)	$ 3,191	$ 3,191	$
Warrant liability	172	—	
Exchangeable share liability	656	—	
Convertible preferred stock, $0.001 par value; 62,200,000 shares authorized, 44,967,690 shares issued and outstanding, actual; no shares issued and outstanding, pro forma and pro forma as adjusted.	56,526	—	
Stockholders' (deficit) equity:			
Preferred stock, $0.001 par value; no shares authorized, issued and outstanding, actual and pro forma; shares authorized and no shares issued and outstanding pro forma as adjusted.	—	—	
Common stock, $0.001 par value; 100,000,000 shares authorized, 8,671,958 shares issued and outstanding, actual; shares authorized and 58,289,352 shares issued and outstanding, pro forma; and shares authorized and shares issued and outstanding, pro forma as adjusted	9	58	

	As of March 31, 2013		
	Actual	Pro Forma (unaudited)	Pro Forma As Adjusted[1]
	(in thousands, except per share data)		
Additional paid-in capital	12,869	70,174	
Deficit accumulated during the development stage	(69,163)	(69,163)	
Total stockholders' (deficit) equity	(56,285)	1,069	
Total capitalization	$ 4,260	$ 4,260	$

(1) A $1.00 increase (decrease) in the assumed initial public offering price of $ per share, the midpoint of the estimated price range set forth on the cover page of this prospectus, would increase (decrease) the amount of cash and cash equivalents, additional paid-in capital, total stockholders' equity (deficit) and total capitalization by approximately $ million, assuming 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 and estimated offering expenses payable by us. Each increase (decrease) of one million shares in the number of shares offered by us would increase (decrease) cash and cash equivalents, total stockholders' equity (deficit) and total capitalization by approximately $ million, assuming the assumed initial public offering price of $ per share, the midpoint of the price range set forth on the cover page of this prospectus, remains the same, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. The pro forma as adjusted information discussed above is illustrative only and will be adjusted based on the actual public offering price and other terms of this offering determined at pricing.

The actual, pro forma and pro forma as adjusted information set forth in the table excludes:

- 9,804,896 shares of common stock issuable upon the exercise of stock options outstanding as of March 31, 2013 at a weighted average exercise price of $0.22 per share;
- 234,482 shares of common stock issuable upon the exercise of warrants outstanding as of March 31, 2013 at a weighted average exercise price of $1.11 per share, which warrants prior to the completion of this offering are exercisable to purchase preferred stock, assuming such warrants will not be exercised prior to the completion of this offering;
- shares of common stock reserved for future issuance under the 2013 Plan, which will become effective upon the completion of this offering; and
- up to 3,125,000 shares of common stock that may be issuable to holders of exchangeable shares of Fate Canada in connection with certain milestone or change of control events that may occur after this offering, as described in "Description of Capital Stock—Exchangeable Shares in Canadian Subsidiary" elsewhere in this prospectus.

DILUTION

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

Our historical net tangible book deficit of our common stock as of March 31, 2013 was approximately $(56.3) million, or $(6.49) per share. Historical net tangible book deficit per share represents our total tangible assets less our total liabilities and convertible preferred stock, divided by the number of shares of common stock outstanding at March 31, 2013.

Our pro forma net tangible book value of our common stock as of March 31, 2013 was $1.1 million, or approximately $0.02 per share. Pro forma net tangible book value gives effect to (i) the conversion of all outstanding shares of convertible preferred stock into an aggregate of 46,992,394 shares of common stock upon the completion of this offering, (ii) the issuance of 2,625,000 shares of common stock pursuant to the redemption of an aggregate of 900,000 exchangeable shares of Fate Canada as described in "Description of Capital Stock—Exchangeable Shares in Canadian Subsidiary" elsewhere in this prospectus, which will occur immediately prior to the completion of this offering, and the resultant reclassification of our exchangeable share liability to additional paid-in capital, a component of stockholders' equity and (iii) the adjustment of our outstanding warrants to purchase 230,000 shares of convertible preferred stock into warrants to purchase 234,482 shares of common stock upon the completion of this offering and the resultant reclassification of our warrant liability to additional paid-in capital, a component of stockholders' equity.

Net tangible book value dilution per share to new investors represents the difference between the amount per share paid by purchasers of common stock in this offering and the pro forma as adjusted net tangible book value per share of our common stock immediately after the completion of this offering. After giving effect to (i) the pro forma transactions described in the preceding paragraph and (ii) our sale of shares of common stock in this offering at an assumed initial public offering price of $ per share, which is the midpoint of the estimated price range set forth on the cover page of this prospectus, and after deducting estimated underwriting discounts and commissions and estimated offering expenses, our pro forma as adjusted net tangible book value as of March 31, 2013 would have been $ per share. This represents an immediate increase in net tangible book value of $ per share to existing stockholders and an immediate dilution in net tangible book value of $ per share to purchasers of common stock in this offering, as illustrated in the following table:

Assumed initial public offering price per share		$
Historical net tangible book deficit per share as of March 31, 2013	$(6.49)	
Pro forma increase in net tangible book value per share attributable to pro forma transactions described in preceding paragraphs	6.51	
Pro forma net tangible book value per share as of March 31, 2013	$ 0.02	
Increase per share attributable to new investors		
Pro forma as adjusted net tangible book value per share at March 31, 2013 after giving effect to this offering		
Dilution per share to new investors		$

A $1.00 increase (decrease) in the assumed initial public offering price of $ per share would increase (decrease) the pro forma as adjusted net tangible book value by $ per share and the dilution to new investors by $ per share, assuming the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same, and after deducting underwriting discounts and commissions and estimated expenses payable by us. Similarly, each increase (decrease) of one million shares in the number of shares offered by us would increase (decrease) the pro forma as adjusted net tangible book value by $ per share and the dilution to new investors by $ per share, assuming the assumed initial public offering price remains the same and after deducting underwriting discounts and commissions and estimated expenses payable by us.

If the underwriters exercise their option to purchase additional shares of common stock in this offering in full, our pro forma as adjusted net tangible book value per share after the offering would be $ per share, the increase in the pro forma as adjusted net tangible book value per share to existing stockholders would be $ per share and the dilution to investors participating in this offering would be $ per share.

The following table summarizes, on a pro forma as adjusted basis, as of March 31, 2013, the differences between the number of shares of common stock purchased from us, the total consideration paid to us and the average price per share paid by existing stockholders and by new investors at an assumed initial public offering price of $ per share, the midpoint of the price range set forth on the cover of this prospectus, before deducting estimated underwriting discounts and commissions and estimated offering expenses.

	Shares Purchased		Total Consideration		Average Price Per Share
	Number	Percent	Amount	Percent	
	(in thousands, except per share amounts)				
Existing stockholders		%	$	%	$
New investors					
Total	$	100%	$	100%	

The above discussion and tables are based on 8,671,958 shares of common stock issued and outstanding as of March 31, 2013 and also reflects (i) the conversion of all outstanding shares of convertible preferred stock into an aggregate of 46,992,394 shares of common stock immediately prior to the completion of this offering and (ii) the issuance of 2,625,000 shares of common stock pursuant to the redemption of an aggregate of 900,000 exchangeable shares of Fate Canada as described in “Description of Capital Stock—Exchangeable Shares in Canadian Subsidiary” elsewhere in this prospectus, which will occur immediately prior to the completion of this offering, and excludes:

- 9,804,896 shares of common stock issuable upon the exercise of stock options outstanding as of March 31, 2013 at a weighted average exercise price of $0.22 per share;
- 234,482 shares of common stock issuable upon the exercise of warrants outstanding as of March 31, 2013 at a weighted average exercise price of $1.11 per share, which warrants prior to the completion of this offering are exercisable to purchase convertible preferred stock, assuming such warrants will not be exercised prior to the completion of this offering;
- shares of common stock reserved for future issuance under the 2013 Plan, which will become effective upon the completion of this offering; and
- up to 3,125,000 shares of common stock that may become issuable to holders of exchangeable shares of Fate Canada in connection with certain milestone or change of control events that may occur after this offering, as described in “Description of Capital Stock—Exchangeable Shares in Canadian Subsidiary” elsewhere in this prospectus.

A $1.00 increase (decrease) in the assumed initial public offering price of $ per share, the midpoint of the price range set forth on the cover of this prospectus, would increase (decrease) the total consideration paid by new investors by approximately $ million, assuming the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

To the extent that outstanding options and warrants are exercised or additional shares of common stock are issued to holders of exchangeable shares of Fate Canada upon the achievement of milestones or the occurrence of a change of control, you will experience further dilution. In addition, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of these securities may result in further dilution to our stockholders.

SELECTED CONSOLIDATED FINANCIAL DATA

The following selected consolidated financial information should be read together with our consolidated financial statements and accompanying notes and information under the caption “Management’s Discussion and Analysis of Financial Condition and Results of Operations” appearing elsewhere in this prospectus. Our historical results are not necessarily indicative of results that may be expected in the future and results of interim periods are not necessarily indicative of the results for the entire year.

The selected consolidated statements of operations data for the years ended December 31, 2011 and 2012 and the summary consolidated balance sheet data as of December 31, 2011 and 2012 are derived from our audited consolidated financial statements appearing elsewhere in this prospectus. The summary consolidated statements of operations data for the three months ended March 31, 2012 and 2013 and the period from April 27, 2007 (inception) through March 31, 2013 and balance sheet data as of March 31, 2013 are derived from our unaudited consolidated financial statements and related notes appearing elsewhere in this prospectus. The unaudited consolidated financial statements have been prepared on a basis consistent with our audited consolidated financial statements included in this prospectus and, in the opinion of management, reflect all adjustments, consisting only of normal recurring adjustments, necessary to fairly state our financial position as of March 31, 2013 and results of operations for the three months ended March 31, 2012 and 2013.

	Years Ended December 31,		Three Months Ended March 31,		Period from April 27, 2007 (inception) through March 31, 2013
	2011	2012	2012	2013	
			(unaudited)		(unaudited)
Consolidated Statements of Operations Data:	(in thousands, except share and per share data)				
Revenue:					
Collaboration revenue	$ 833	$ 1,268	$ 208	$ 209	$ 2,510
Grant revenue	337	1,402	210	263	2,002
Total revenue	1,170	2,670	418	472	4,512
Operating expenses:					
Research and development	9,858	11,999	2,481	2,531	47,510
General and administrative	4,605	4,228	1,057	1,297	25,368
Total operating expenses	14,463	16,227	3,538	3,828	72,878
Loss from operations	(13,293)	(13,557)	(3,120)	(3,356)	(68,366)
Total other income (expense)	(134)	(682)	(114)	(192)	(797)
Net loss and comprehensive loss	$ (13,427)	$ (14,239)	$ (3,234)	$ (3,548)	$ (69,163)
Net loss per common share, basic and diluted[(1)]	$ (2.49)	$ (2.01)	$ (0.53)	$ (0.45)	
Weighted-average shares used to compute basic and diluted net loss per share [(1)]	5,401,234	7,087,303	6,126,883	7,886,614	
Pro forma net loss per common share, basic and diluted (unaudited)[(1)]		$ (0.30)		$ (0.06)	
Weighted-average shares used to compute pro forma net loss per common share, basic and diluted (unaudited)[(1)]		48,521,484		57,504,008	

(1) See Note 1 to our financial statements included elsewhere in this prospectus for an explanation of the method used to calculate the historical and pro forma net loss per share, basic and diluted, and the number of shares used in the computation of the per share amounts.

	As of December 31, 2011	As of December 31, 2012	As of March 31, 2013 (unaudited)
		(in thousands)	
Consolidated Balance Sheet Data:			
Cash and cash equivalents	$ 6,387	$ 9,087	$ 4,647
Working capital	3,013	4,943	1,174
Total assets	7,852	11,076	6,437
Warrant liability	221	184	172
Long-term debt, net of current portion	3,591	1,732	1,240
Exchangeable share liability	563	551	656
Convertible preferred stock	50,309	56,526	56,526
Deficit accumulated during the development stage	(51,376)	(65,615)	(69,163)
Total stockholders' deficit	(50,683)	(52,825)	(56,285)

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 consolidated financial statements and related notes appearing in 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. As a result of many factors, including those factors set forth in the "Risk Factors" section of this prospectus, our actual results could differ materially from the results described in or implied by the forward-looking statements contained in the following discussion and analysis.

Overview

We are a clinical-stage biopharmaceutical company engaged in the discovery and development of pharmacologic modulators of adult stem cells to treat orphan diseases, including certain hematologic malignancies, lysosomal storage disorders and muscular dystrophies. Our novel approaches utilize established pharmacologic modalities, including small molecules and therapeutic proteins, and target well-characterized biological mechanisms to enhance the therapeutic potential of adult stem cells. Based on our deep understanding of key biological mechanisms that guide the fate of adult stem cells, we have built two platforms that optimize the activity of adult stem cells using both *ex vivo* and *in vivo* techniques: our HSC modulation platform and SSC modulation platform. We believe that the product candidates generated by our platforms have significant potential as life-changing or curative therapeutics across a broad range of orphan indications.

Our HSC modulation platform focuses on the *ex vivo* pharmacologic optimization of hematopoietic stem cells, or HSCs. Our lead product candidate from this platform, ProHema, is a pharmacologically modulated HSC therapeutic derived from umbilical cord blood. We have established human proof-of-concept for ProHema in a Phase 1b clinical trial by demonstrating enhanced engraftment. We are presently advancing ProHema in Phase 2 clinical development for hematologic malignancies. Our SSC modulation platform focuses on the *in vivo* pharmacologic activation of satellite stem cells, or SSCs. We have identified Wnt7a as a natural promoter of SSCs to drive muscle regeneration, and we have demonstrated proof-of-concept of Wnt7a analogs as potential therapeutics for muscular dystrophy in preclinical animal studies. We are presently advancing our Wnt7a analogs in preclinical development with the goal of filing an IND in 2014.

Since our inception in 2007, we have devoted substantially all of our resources to the development of our stem cell modulation platforms, the clinical and preclinical advancement of our product candidates, the creation, licensing and protection of related intellectual property and the provision of general and administrative support for these operations. We have generated revenues from collaboration activities and grants, but have not generated any revenues from therapeutic product sales. We have funded our operations primarily through the private placement of preferred stock and convertible notes and through commercial bank debt. We continue to be classified as a development stage company for financial reporting purposes.

We have never been profitable and have incurred net losses in each year since inception. Our net losses were $13.4 million and $14.2 million for the years ended December 31, 2011 and 2012, respectively, and $3.2 million and $3.5 million for the three months ended March 31, 2012 and 2013, respectively. Substantially all of our net losses resulted from costs incurred in connection with our research and development programs and from general and administrative costs associated with our operations. We expect to continue to incur significant expenses and increasing operating losses for at least the next several years. Our net losses may fluctuate significantly from quarter to quarter and year to year. We expect our expenses will increase substantially in connection with our ongoing activities as we:

- conduct clinical trials of our initial product candidates;
- continue our research and development efforts;
- manufacture preclinical study and clinical trial materials;

- maintain, expand and protect our intellectual property portfolio;
- seek regulatory approvals for our product candidates that successfully complete clinical trials;
- hire additional clinical, quality control and technical personnel to conduct our clinical trials;
- hire additional scientific personnel to support our product development efforts;
- implement operational, financial and management systems; and
- add general and administrative personnel to operate as a public company.

We do not expect to generate any revenues from therapeutic product sales until we successfully complete development and obtain regulatory approval for one or more of our product candidates, which we expect will take a number of years. If we obtain regulatory approval for any of our product candidates, we expect to incur significant commercialization expenses related to product sales, marketing, manufacturing and distribution. Accordingly, we will seek to fund our operations through public or private equity or debt financings or other sources. However, we may be unable to raise additional funds or enter into such other arrangements when needed on favorable terms or at all. Our failure to raise capital or enter into such other arrangements when needed would have a negative impact on our financial condition and ability to develop our product candidates. Our recurring losses from operations and negative cash flows raise substantial doubt about our ability to continue as a going concern and, as a result, our independent registered public accounting firm included an explanatory paragraph in its report on our financial statements as of and for the year ended December 31, 2012 with respect to this uncertainty.

Financial Operations Overview

We conduct substantially all of our activities through Fate Therapeutics, Inc., a Delaware corporation, at our facility in San Diego, California. Fate Therapeutics, Inc. owns 100% of the voting shares of Fate Canada, that were outstanding at March 31, 2013 and directs all of its operational activities, which are insignificant as compared to the operations of Fate Therapeutics, Inc. The following information is presented on a consolidated basis to include the accounts of Fate Therapeutics, Inc. and Fate Canada. All intercompany transactions and balances are eliminated in consolidation.

Revenue

To date, we have not generated any revenues from therapeutic product sales. Our revenues have been derived from collaboration activities and grant revenues.

Collaboration revenues are generated exclusively from our collaboration arrangement with Becton, Dickinson and Company, or BD. In September 2010, we entered into a worldwide exclusive license and collaboration agreement with BD for the joint development and worldwide commercialization of certain induced pluripotent stem cell, or iPSC, tools and technologies for use in drug discovery and development. The license and collaboration agreement was assigned by BD to Corning Incorporated in October 2012. In connection with the agreement, we received an upfront, non-refundable license payment, and are entitled to receive research funding for the conduct of joint development activities for a period of three years ending in September 2013. In addition, we are eligible to receive certain commercialization milestones and royalties on the sale of iPSC reagent products. In connection with the arrangement with BD, we recognized $0.8 million, $1.3 million, $0.2 million and $0.2 million for the years ended December 31, 2011 and 2012 and the three months ended March 31, 2012 and 2013, respectively, as collaboration revenue in our consolidated statements of operations. Our three-year joint development period under our license and collaboration agreement with BD concludes in September 2013. We do not currently anticipate generating any significant revenues associated with iPSC tools and technologies thereafter.

Grant revenue is primarily generated through research and development grant programs offered by the U.S. government and its agencies. In April 2011, we were awarded a $2.1 million grant from the U.S. Army Telemedicine & Advanced Technology Research Center, or TATRC, to identify and develop regenerative medicines for acute sound-inducing hearing loss. All funding under the TATRC grant was expended in full as of May 2013.

Research and Development Expenses

Research and development expenses consist of development costs associated with our platforms and programs. These costs are expensed as incurred and include:

- compensation and employee-related costs;
- costs associated with conducting our preclinical, clinical and regulatory activities, including fees paid to third-party professional consultants and service providers;
- costs incurred under clinical trial agreements with investigative sites;
- costs for laboratory supplies;
- costs to acquire, develop and manufacture preclinical study and clinical trial materials;
- charges associated with the achievement of certain preclinical and financial milestones pursuant to our asset acquisition of Verio Therapeutics Inc., or Verio, that was completed in April 2010; and
- facilities, depreciation and other expenses including allocated expenses for rent and maintenance of facilities.

From inception through March 31, 2013, we incurred $47.5 million in research and development expenses. We plan to increase our current level of research and development expenses for the foreseeable future as we continue the development of our stem cell modulation platforms and our initial therapeutic product candidates. Our current planned research and development activities include the following:

- advancing ProHema in a Phase 2 clinical trial in the setting of orphan hematologic malignancies in 2014 to examine its safety and its curative potential in allogeneic HSCT;
- initiating in 2014 a clinical trial of a pharmacologically-modulated HSC product candidate in pediatric patients with lysosomal storage disorders, or LSDs, to evaluate its safety and its curative potential in allogeneic HSCT; and
- conducting IND-enabling studies, filing an IND in 2014 and initiating a clinical trial of our Wnt7a protein analog product candidate to evaluate its safety and its potential to promote muscle regeneration.

We cannot determine with certainty the timing of initiation, the duration and the completion costs of current or future preclinical studies and clinical trials of our therapeutic product candidates. At this time, due to the inherently unpredictable nature of preclinical and clinical development and given the early stage of our programs, we are unable to estimate with any certainty the costs we will incur and the timelines we will require in the continued development of our product candidates, including ProHema. Clinical and preclinical development timelines, the probability of success and development costs can differ materially from expectations. In addition, we cannot forecast which product candidates may be subject to future collaborations, when such arrangements will be secured, if at all, and to what degree such arrangements would affect our development plans and capital requirements.

The following table summarizes our research and development expenses by major programs for the periods indicated:

	Years Ended December 31,		Three Months Ended March 31,	
	2011	2012	2012	2013
			(unaudited)	
	(in thousands)			
HSC modulation platform	$3,084	$ 5,869	$1,092	$ 1,158
Other preclinical programs and technologies	3,379	3,589	752	787
Total direct research and development expenses	6,463	9,458	1,844	1,945
Unallocated expenses	3,395	2,541	637	586
Total research and development expenses	$9,858	$11,999	$2,481	$ 2,531

Prior to 2011, we did not track research and development expenses by program. We do not allocate general equipment and supply costs, or facilities, depreciation and other miscellaneous expenses to specific programs as these expenses are deployed across all of our programs.

General and Administrative Expenses

General and administrative expenses consist primarily of salaries and employee-related costs, including stock-based compensation and travel expenses for our employees in executive, operational, finance and human resource functions. Other general and administrative expenses include facility-related costs and professional fees for directors, accounting and legal services and expenses associated with obtaining and maintaining patents.

We anticipate that our general and administrative expenses will increase in the future as we increase our headcount to support our continued research and development and potential commercialization of our product candidates. We also anticipate increased expenses related to audit, legal, regulatory, and tax-related services associated with maintaining compliance with exchange listing and SEC requirements, director and officer insurance premiums, and investor relations costs associated with being a public company.

Other Income (Expense), Net

Other income (expense), net consists primarily of interest income earned on cash and cash equivalents; interest expense on convertible notes and on amounts outstanding under our credit facility; change in fair value of the exchangeable share liability relating to the total exchangeable shares held by the prior stockholders of Verio; change in fair value of the warrant liability relating to our outstanding preferred stock warrants; and amounts received related to a therapeutic discovery project tax credit under Section 48D of the Internal Revenue Code of 1986, as amended, or the Code.

Critical Accounting Policies and Significant Judgments and Estimates

Our management's discussion and analysis of our financial condition and results of operations are based on our financial statements, which have been prepared in accordance with U.S. generally accepted 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. We base our estimates on historical experience, known trends and events, and various other factors that are believed to be 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.

While our significant accounting policies are described in more detail in the notes to our financial statements appearing elsewhere in this prospectus, we believe the following accounting policies to be most critical to the judgments and estimates used in the preparation of our financial statements.

Revenue Recognition

Our revenues have principally consisted of license fees, periodic research and development funding and milestone payments under our September 2010 license and collaboration agreement with BD, as well as funding received under government grants. Our license and collaboration agreement contains multiple elements, all of which are accounted for as collaboration revenue. We recognize revenues when all four of the following criteria are met: (i) persuasive evidence that an agreement exists; (ii) delivery of the products and/or services has occurred; (iii) the selling price is fixed or determinable; and (iv) collectibility is reasonably assured.

Collaboration Revenues

Agreements entered into prior to 2011. For multiple-element agreements entered into prior to January 1, 2011 and not materially modified thereafter, such as our agreement with BD, we analyzed the agreement to

determine whether the elements within the agreement could be separated or whether they must be accounted for as a single unit of accounting. If the delivered element, which for us is commonly a license, has stand-alone value and the fair value of the undelivered elements, which for us are generally collaboration research activities, can be determined, we recognized revenue separately under the residual method as the elements under the agreement are delivered. If the delivered element does not have stand-alone value or if the fair value of the undelivered element cannot be determined, the agreement is then accounted for as a single unit of accounting, with consideration received under the agreement recognized as revenue on the straight-line basis over the estimated period of performance, which for us is generally the expected term of the research and development plan.

Agreements entered into or materially modified after December 31, 2010. In October 2009, the Financial Accounting Standards Board, or FASB, issued a new accounting standard which amended the guidance on accounting for arrangements involving the delivery of more than one element. This standard addresses the determination of the unit(s) of accounting for multiple-element arrangements and how the arrangement's consideration should be allocated to each unit of accounting. In January 2011, we adopted new authoritative guidance on revenue recognition for milestone payments related to agreements under which we have continuing performance obligations. As required under the new literature, we evaluate all milestones at the beginning of the agreement to determine if they meet the definition of a substantive milestone.

We recognize revenue from milestone payments when earned, provided that (i) the milestone event is substantive in that it can only be achieved based in whole or in part on either our performance or on the occurrence of a specific outcome resulting from our performance and its achievability was not reasonably assured at the inception of the agreement, (ii) we do not have ongoing performance obligations related to the achievement of the milestone and (iii) it would result in the receipt of additional payments. A milestone payment is considered substantive if all of the following conditions are met: (i) the milestone payment is non-refundable; (ii) achievement of the milestone was not reasonably assured at the inception of the arrangement; (iii) substantive effort is involved to achieve the milestone and (iv) the amount of the milestone payment appears reasonable in relation to the effort expended, the other milestones in the arrangement and the related risk associated with the achievement of the milestone.

Collaboration arrangements providing for payments to us upon the achievement of research and development milestones generally involve substantial uncertainty as to whether any such milestone would be achieved. In the event a milestone is considered to be substantive, we expect to recognize future payments as revenue in connection with the milestone as it is achieved. Collaboration arrangements providing for payments to us upon the achievement of milestones that are solely contingent upon the performance of a collaborator also involve substantial uncertainty as to whether any such milestone would be achieved. For such contingent milestones, even if they do not meet the definition of a substantive milestone, since they are based solely upon a collaborator's effort, we expect to recognize future payments as revenue when earned under the applicable arrangement, provided that collection is reasonably assured.

Government Grant Revenue

Revenue from government grants is recorded when reimbursable expenses are incurred under the grant in accordance with the terms of the grant award. The receivable for reimbursable amounts that have not been collected is reflected in prepaid and other current assets on our consolidated balance sheets.

Deferred Revenue

Amounts received prior to satisfying the above revenue recognition criteria are recorded as deferred revenue. Amounts not expected to be recognized within the next 12 months are classified as non-current deferred revenue on our consolidated balance sheets.

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 open contracts and purchase orders, communicating with our personnel to identify 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. Examples of estimated accrued research and development expenses include fees paid to investigative sites in connection with clinical trials; service providers in connection with preclinical development activities; and service providers related to product manufacturing, development and distribution of clinical supplies.

We base our expenses related to clinical trials on our estimates of the services received and efforts expended pursuant to our contract arrangements. 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 service providers will exceed the level of services provided and result in a prepayment of the clinical expense. Payments under some of these contracts depend on factors such as the successful enrollment of patients and the completion of clinical milestones. 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, if our estimates of the status and timing of services performed differs from the actual status and timing of services performed, we may report amounts that are too high or too low in any particular period. To date, there have been no material differences from our estimates to the amount actually incurred.

Stock-Based Compensation

Stock-based compensation expense represents the grant date fair value of employee stock option grants recognized over the requisite service period of the awards (usually the vesting period) on a straight-line basis, net of estimated forfeitures. For stock option grants with performance-based milestones, the expense is recorded over the remaining service period after the point when the achievement of the milestone is probable or the performance condition has been achieved. For stock option grants with both performance-based milestones and market conditions, expense is recorded over the derived service period after the point when the achievement of the performance-based milestone is probable or the performance condition has been achieved. We estimate the fair value of stock option grants using the Black-Scholes option pricing model, with the exception of option grants with both performance-based milestones and market conditions, which are valued using a lattice based model.

We account for stock options and restricted stock awards to non-employees using the fair value approach. Stock options and restricted stock awards to non-employees are subject to periodic revaluation over their vesting terms. For stock option grants with performance-based milestones, the expense is recorded over the remaining service period after the point when the performance condition has been achieved.

We generally estimate the fair value of our stock-based awards to employees and non-employees using the Black-Scholes option pricing model, which requires the input of highly subjective assumptions, including (a) the risk-free interest rate, (b) the expected volatility of our stock, (c) the expected term of the award and (d) the expected dividend yield. Due to the lack of a public market for the trading of our common stock and a lack of company specific historical and implied volatility data, we have based our estimate of expected volatility on the historical volatility of a group of similar companies that are publicly traded. For these analyses, we have selected companies with comparable characteristics to ours including enterprise value, risk profiles, position within the industry, and with historical share price information sufficient to meet the expected life of the stock-based awards. We compute the historical volatility data using the daily closing prices for the selected companies' shares during the equivalent period of the calculated expected term of our stock-based awards. We will continue to apply this process until a sufficient amount of historical information regarding the volatility of our own stock price becomes available. We have estimated the expected life of our employee stock options using the "simplified" method, whereby, the expected life equals the average of the vesting term and the original contractual term of the option. The risk-free interest rates for periods within the expected life of the option are based on the yields of zero-coupon U.S. Treasury securities.

The weighted-average assumptions used in the Black-Scholes option pricing model to determine the fair value of employee stock option grants were as follows:

	Years Ended December 31,		Three Months Ended March 31,	
	2011	2012	2012	2013
Risk-free interest rate	1.1%	1.0%	1.0%	1.1%
Expected volatility	90%	94%	94%	90%
Expected term (in years)	6.1	6.1	6.1	6.1
Expected dividend yield	0.0%	0.0%	0.0%	0.0%

The weighted-average assumptions used in the Black-Scholes option pricing model to determine the fair value of non-employee stock option grants were as follows:

	Years Ended December 31,		Three Months Ended March 31,	
	2011	2012	2012	2013
Risk-free interest rate	1.1%	1.2%	1.2%	1.3%
Expected volatility	90%	94%	94%	90%
Expected term (in years)	6.1	7.5	6.6	8.3
Expected dividend yield	0.0%	0.0%	0.0%	0.0%

The following table summarizes by grant date the number of shares of common stock underlying stock options granted from January 1, 2012 through March 31, 2013, as well as the associated per share exercise price and the estimated fair value per share of our common stock on the grant date:

Grant Dates	Number of Common Shares Underlying Options Granted	Exercise Price per Common Share	Estimated Fair Value per Common Share
February 9, 2012	1,612,175	$ 0.25	$ 0.25
March 13, 2012	205,159	0.25	0.25
March 23, 2012	372,500	0.25	0.25
July 24, 2012	805,168	0.21	0.21
October 10, 2012	4,557,894	0.21	0.21
December 12, 2012	175,000	0.21	0.21
January 14, 2013	124,500	0.21	0.21
February 6, 2013	370,000	0.21	0.21

Total employee stock-based compensation expense related to unvested stock option grants not yet recognized as of March 31, 2013 was approximately $0.7 million and the weighted-average period over which these grants are expected to vest is 3.2 years.

Based on the assumed initial public offering price of $ per share (the midpoint of the price range set forth on the cover page of this prospectus), the intrinsic value of stock options outstanding as of March 31, 2013 would be $ million, of which $ million and $ million would have been related to stock options that were vested and unvested, respectively, at that date.

Determination of the Fair Value of Common Stock

We are required to estimate the fair value of the common stock underlying our stock-based awards when performing fair value calculations. The fair value of the common stock underlying our stock-based awards was determined on each grant date by our board of directors, taking into account input from management and independent third-party valuation analysis. All options to purchase shares of our common stock are intended to

be granted with an exercise price per share no less than the fair value per share of our common stock underlying those options on the date of grant, based on the information known to us on the date of grant. In the absence of a public trading market for our common stock, on each grant date we develop an estimate of the fair value of our common stock in order to determine an exercise price for the option grants. Our determinations of the fair value of our common stock were made using methodologies, approaches and assumptions consistent with the American Institute of Certified Public Accountants, or AICPA, Audit and Accounting Practice Aid Series: Valuation of Privately Held Company Equity Securities Issued as Compensation, or the Practice Aid.

Our board of directors considered various objective and subjective factors, along with input from management, to determine the fair value of our common stock, including:

- contemporaneous valuations prepared by independent third-party valuation specialists effective as of August 31, 2011, July 3, 2012 and March 31, 2013;
- the prices of our convertible preferred stock sold to investors in arm's length transactions, and the rights, preferences and privileges of our convertible preferred stock as compared to those of our common stock, including the liquidation preferences of our convertible preferred stock;
- our results of operations, financial position and the status of research and development efforts and achievement of enterprise milestones;
- the composition of, and changes to, our management team and board of directors;
- the lack of liquidity of our common stock as a private company;
- our stage of development and business strategy and the material risks related to our business and industry;
- the valuation of publicly traded companies in the life sciences and biotechnology sectors, as well as recently completed mergers and acquisitions of peer companies;
- external market conditions affecting the life sciences and biotechnology industry sectors;
- the likelihood of achieving a liquidity event for the holders of our common stock, such as an initial public offering, or IPO, or a sale of our company, given prevailing market conditions; and
- the state of the IPO market for similarly situated privately held biotechnology companies.

There are significant judgments and estimates inherent in the determination of the fair value of our common stock. These judgments and estimates include assumptions regarding our future operating performance, the time to completing an IPO or other liquidity event and the determination of the appropriate valuation methods. If we had made different assumptions, our stock-based compensation expense, net loss and net loss per common share could have been significantly different.

Common Stock Valuation Methodologies

Our valuations were prepared in accordance with the guidelines in the Practice Aid, which prescribes several valuation approaches for setting the value of an enterprise, such as the cost, income and market approaches, and various methodologies for allocating the value of an enterprise to its common stock. The cost approach establishes the value of an enterprise based on the cost of reproducing or replacing the property less depreciation and functional or economic obsolescence, if present. The income approach establishes the value of an enterprise based on the present value of future cash flows that are reasonably reflective of our company's future operations, discounting to the present value with an appropriate risk adjusted discount rate or capitalization rate. The market approach is based on the assumption that the value of an asset is equal to the value of a substitute asset with the same characteristics. The following market approaches were utilized in our various valuations:

- **Guideline public company method**. The guideline public company market approach estimates the value of a business by comparing a company to similar publicly-traded companies.

- **Guideline transaction method**. The guideline transaction market approach estimates the value of a business based on valuations from selected mergers and acquisitions transactions for companies with similar characteristics.
- **Precedent transaction method**. The precedent transaction market approach estimates the value of a business based on the utilization of a company's own relevant stock transactions.

Each valuation methodology was considered in our valuations. We elected not to utilize the cost approach in any of our valuations since our value relates primarily to our intangible assets.

Methods Used to Allocate Our Enterprise Value to Classes of Securities

In accordance with the Practice Aid, we considered the various methods for allocating the enterprise value across our classes and series of capital stock to determine the fair value of our common stock at each valuation date. The methods we considered consisted of the following:

- **Current value method.** Under the current value method, once the fair value of the enterprise is established, the value is allocated to the various series of preferred and common stock based on their respective seniority, liquidation preferences or conversion values, whichever is greatest.
- **Option pricing method.** Under the option pricing method, shares are valued by creating a series of call options with exercise prices based on the liquidation preferences and conversion terms of each equity class. The values of the preferred and common stock are inferred by analyzing these options.
- **Probability-weighted expected return method, or PWERM.** The PWERM is a scenario-based analysis that estimates the value per share based on the probability-weighted present value of expected future investment returns, considering each of the possible outcomes available to us, as well as the economic and control rights of each share class.

February 2012 and March 2012 grants. On each of February 9, 2012, March 13, 2012 and March 23, 2012, our board of directors determined that the fair value of our common stock was $0.25 per share in connection with the grant of stock options. As part of each determination, our board of directors concluded that no significant internal or external value-generating events had taken place between the August 2011 valuation analysis and the dates of these stock option grants.

The common stock fair value in August 2011 was estimated to be $0.25 per share by our board of directors, with input from both management and independent third-party valuation specialists. It was believed that a precedent transaction market approach was most reliable to determine our enterprise value because we completed a third closing of our Series B preferred stock financing in March 2011 with a new strategic investor. The guideline public company method and the guideline transaction method were also considered, but not utilized due to our early stage of development. We did not identify any major operational events between March 2011 and August 2011 that would cause a change in our overall enterprise value.

The option pricing method was utilized to allocate the enterprise value to our common stock. It was determined that the option pricing method was the most reliable given the expectation of various potential liquidity outcomes and the difficulty of selecting and supporting appropriate enterprise values given our early stage of development and financial position. The calculation of the fair value of our common stock included a probability of success factor of 35% based on success rates for drugs entering clinical trials as reported in the 2011 Pharmaceutical Industry Profile issued by the Pharmaceutical Research and Manufacturers of America; a discount for lack of control of 5% due to the protective provisions afforded the preferred stockholders that were not afforded to the common stockholders; and a discount for lack of marketability, or DLOM, of 50% based on several empirical restricted stock studies and mathematical models for calculating illiquidity discounts. Because the enterprise value was established relative to the sale price of an illiquid security, the DLOM reflected only an incremental discount for lack of marketability attributed to the illiquidity of the common stock relative to that of the Series B preferred stock.

July 2012 valuation and grants. The common stock fair value was estimated by our board of directors to be $0.21 per share in July 2012, with input from both management and independent third-party valuation

specialists, in connection with the grant of stock options. This valuation utilized a market approach to determine our enterprise value. It was believed that a precedent transaction market approach was most reliable to determine our enterprise value since we completed closings of our Series C preferred stock financing in May and July 2012. The guideline public company method and the guideline transaction method were also considered, but not utilized due to our early stage of development.

The May 2012 and July 2012 closings included 9.2 million shares of Series C convertible preferred stock issued at $1.00 per share. The Series C preferred stock financing included what is commonly referred to as a pay-to-play provision, pursuant to which each existing holder of over 750,000 shares of our convertible preferred stock was required to participate, on a pro rata preferred stock ownership basis, in the Series C preferred stock financing. If such a stockholder elected not to participate in the Series C preferred stock financing, every ten shares of convertible preferred stock held by such stockholder would be converted into one share of common stock. Two of the nine investors subject to the pay-to-play provision elected not to participate in the Series C preferred stock financing including one investor, which owned approximately 13.0% of the outstanding convertible preferred stock, and a second investor, which owned approximately 4.6% of the outstanding convertible preferred stock, prior to such Series C preferred stock financing.

The option pricing method was utilized to allocate the enterprise value to our common stock. It was determined that the option pricing method was the most reliable given the expectation of various potential liquidity outcomes and the difficulty of selecting and supporting appropriate enterprise values given our early stage of development and financial position. The calculation of the fair value of our common stock included a probability of success factor of 65% based on success rates for drugs in clinical trials as reported in the 2011 Pharmaceutical Industry Profile issued by the Pharmaceutical Research and Manufacturers of America, where the probability of success was increased from 35% in the August 2011 valuation due to the continued clinical progression of ProHema; a discount for lack of control of 5% due to the protective provisions afforded the preferred stockholders that were not afforded to our common stockholders; and a DLOM of 25% based on several empirical restricted stock studies and mathematical models for calculating illiquidity discounts. Because the enterprise value was established relative to the sale price of an illiquid security, the DLOM reflected only an incremental discount for lack of marketability attributed to the illiquidity of the common stock relative to that of the Series C convertible preferred stock. The decline in DLOM relative to prior fair value estimates reflects a reduction in the expected time to a liquidity event.

October 2012, December 2012, January 2013 and February 2013 grants. On each of October 10, 2012, December 12, 2012, January 14, 2013 and February 6, 2013, our board of directors determined that the fair value of our common stock was $0.21 per share in connection with the grant of stock options. As part of this determination, our board of directors concluded that no significant internal or external value-generating events had taken place between the July 2012 valuation analysis date and the dates of these stock option grants.

March 2013 valuation. The common stock fair value was estimated to be $0.25 per share in March 2013, with input from both management and independent third-party valuation specialists. To determine our enterprise value, our valuation utilized both an income approach based on a discounted cash flow method and a market approach based on several methods including a guideline public company method, a guideline transaction method and a precedent transaction method. In addition, we utilized the PWERM to determine the per share common stock value using the following probability-weighted liquidity event scenarios:

Liquidity Scenario	Weighting
IPO (early exit)	10%
Merger or sale (early exit)	10%
Late exit	40%
No value to common	40%
Total	100%

The change in valuation methodologies was made because we believed that there was a higher probability of a liquidity event, such as an IPO, merger or sale, in the following 12 to 18 months. For each liquidity event

scenario under the PWERM method, the rights and preferences of each class of our capital stock were considered in order to determine the appropriate allocation of our enterprise value to the shares of our common stock.

At the time of the March 2013 valuation, we considered the potential of an IPO in late 2013, as this opportunity to raise capital was then considered a possibility based on our stage of development. However, there continued to be a significant likelihood that success would not be achieved for our Phase 2 clinical trial of ProHema, and that we would be unable to raise additional capital in order to sustain operations including through the completion of our Phase 2 clinical trial or to an IPO. For the IPO liquidity event scenario, we used the pre-money IPO valuations of recent initial public offerings of biotechnology companies to determine our enterprise value. We reduced this median implied value by (i) the cost of completing an IPO and (ii) the estimated amount of bridge financing required to complete an IPO, and then calculated the common stock value on a fully diluted basis. We then discounted the common stock value to present value using a cost of capital of 25%, and applied a DLOM of 20% based on several empirical restricted stock studies and mathematical models for calculating illiquidity discounts. Because the enterprise value in the IPO liquidity event scenario was established relative to the sale price of registered common stock on the eve of public trading, the DLOM reflected only an incremental discount for lack of marketability attributed to the illiquidity of unregistered common stock.

We also considered the potential of a merger or sale in late 2013. However, there continued to be a significant likelihood that success would not be achieved for our Phase 2 clinical trial of ProHema, and that we would be unable to raise additional capital in order to sustain operations including through the completion of our Phase 2 clinical trial or to a merger or sale. For the merger or sale liquidity event scenario, we used the income approach based on a discounted cash flow method and the market approach based on a guideline transaction method, giving equal weight to both approaches, to determine our enterprise value. The discounted cash flow method was based on management forecasts for our company under the assumption that we would succeed with our clinical trials and product commercialization. The guideline transaction method was based on the enterprise price paid in emerging pharmaceutical and biotechnology acquisitions between 2011 and 2012, where the enterprise price paid included any contingent consideration at its minimum and maximum values. Based on an equal weighting of these two approaches (income and market), the option pricing method was utilized to allocate the enterprise value to the shares of our common stock. To determine the fair value of our common stock, a DLOM of 50% was used based on several empirical restricted stock studies and mathematical models for calculating illiquidity discounts. Since neither method accounted for the illiquidity of the common stock, the DLOM represented the full discount for lack of marketability of the common stock.

We also utilized a precedent transaction market approach because we completed a second tranche of our Series C preferred stock financing in October 2012. The October 2012 closing included 7.6 million shares issued at $1.00 per share. The option pricing method was utilized to allocate the enterprise value to our common stock, where a potential liquidity event was projected to occur in 2017 assuming continued funding of our operations. It was determined that the option pricing method was the most reliable given the expectation of various potential liquidity outcomes and the difficulty of selecting and supporting appropriate exit values given our early stage of development and financial position. To determine the fair value of our common stock, a discount for lack of control of 5% was used due to the protective provisions afforded the preferred stockholders not afforded to the common stockholders, and a DLOM of 30% was used based on several empirical restricted stock studies and mathematical models for calculating illiquidity discounts. Because the enterprise value in the precedent transaction approach was established relative to the sale price of an illiquid security, the DLOM reflected only an incremental discount for lack of marketability attributed to the illiquidity of the common stock relative to that of the Series C convertible preferred stock.

Finally, we utilized a scenario that contemplated circumstances resulting from a failure of our Phase 2 clinical trial of ProHema or from our inability to raise additional funding in order to sustain operations. This scenario assumes a liquidation of the business, where our preferred stockholders would recover a portion of their original investment through a sale of our assets, but no value would remain available for distribution to holders of our common stock.

Warrant Liability

Freestanding warrants for the purchase of convertible preferred stock are classified as liabilities on the consolidated balance sheets at their estimated fair value since the underlying convertible preferred stock has been classified as temporary equity. At the end of each reporting period, changes in the estimated fair value during the period are recorded as a component of other income (expense). We will continue to adjust the fair value of these warrants until the earlier of the exercise of the warrants or the time at which the underlying securities are no longer classified as temporary equity, including the completion of an IPO. We estimate the fair values of the convertible preferred stock warrants using the Black-Scholes option pricing model based on inputs as of the valuation measurement dates for; the estimated fair value of the underlying convertible preferred stock; the remaining contractual terms of the warrants; the risk-free interest rates; the expected dividend yield and the estimated volatility of the price of the convertible preferred stock. The completion of this offering will result in the conversion of our convertible preferred stock into common stock and the warrants will become exercisable into common stock. Upon such conversion, the preferred stock warrants will be classified as a component of stockholders' equity (deficit) and will no longer be subject to remeasurement.

Exchangeable Share Liability

In April 2010, we acquired Verio Therapeutics Inc., or Verio, a development stage company headquartered in Ottawa, Ontario. In connection with the acquisition, the stockholders of Verio received 900,000 non-voting shares of Fate Canada that were initially exchangeable into 900,000 shares of our common stock and, subject to the validation of certain scientific data and the achievement of certain preclinical, clinical, commercial and financial milestones, may be exchangeable for up to 5,750,000 shares of our common stock. As of March 31, 2013, these shares were exchangeable for 2,625,000 shares of our common stock upon the completion of an IPO. Additionally, the holders of the exchangeable shares of Fate Canada may be entitled to receive up to 3,125,000 shares of our common stock upon the satisfaction of applicable performance milestones or the occurrence of a change of control. Any issuance of such shares will be recorded as research and development expense based on the then-current fair value of our common stock. These exchangeable shares are further described in "Description of Capital Stock—Exchangeable Shares in Canadian Subsidiary" elsewhere in this prospectus.

Based on our evaluation of the set of activities and assets of Verio, at the acquisition date, we determined that Verio did not meet the definition of a business. In addition, we determined that Verio was a development stage enterprise without any material inputs; without any processes that create, or have the ability to create, outputs; and without any outputs. As such, the Verio acquisition was accounted for as an asset acquisition and we charged the $0.4 million purchase price to research and development expense. The initial purchase price of the Verio assets consisted of $0.2 million of assumed net liabilities and an initial exchangeable share liability of $0.2 million. This amount represents the estimated fair value of purchased in-process technology for projects that, as of the acquisition date, had not yet reached technological feasibility and had no alternative future use.

The fair value of all previously earned exchange shares is re-measured at each reporting date, with any changes in fair value being recognized in the change in fair value of exchangeable share liability, a component of other income (expense), in the accompanying consolidated statements of operations. We will continue to re-measure the fair value of the exchangeable share liability until the exchange for shares of our common stock is complete. Upon such exchange, the then-current fair value of the exchangeable share liability will be classified as a component of stockholders' equity and will no longer be subject to remeasurement.

Subsequent to our initial charge of $0.2 million to research and development expense in 2010 for the exchangeable share liability, we have recorded charges to research and development expense of $0.4 million in 2011 and $0.1 million in 2012 related to increases in the number of exchangeable shares of 1,350,000 shares and 375,000 shares, respectively. We recorded other income (expense) related to the change in fair value of the exchangeable shares for the years ended December 31, 2011 and 2012 and the three months ended March 31, 2012 and 2013 of $(5,000), $0.1 million, $0 and $(0.1) million, respectively.

Other Company Information

Net Operating Loss Carryforwards

At December 31, 2012, we had federal, California and Canadian net operating loss, or NOL, carryforwards of approximately $34.6 million, $32.2 million and $0.4 million, respectively, which may be available to offset future taxable income. The federal, California and Canadian NOL carryforwards begin to expire in 2027, 2028 and 2029, respectively, unless previously utilized. At December 31, 2012, we had federal and California research and development, or R&D, credit carryforwards of approximately $1.0 million and $1.3 million, respectively. The federal R&D tax credit carryforwards will begin to expire in 2027 unless previously utilized. The California R&D credit carryforwards will carry forward indefinitely.

Utilization of the NOL and R&D credit carryforwards may be subject to a substantial annual limitation due to ownership change limitations that may have occurred or that could occur in the future, as required by Section 382 of the Code, as well as similar state and foreign provisions. These ownership changes may limit the amount of NOL and R&D credit carryforwards that can be utilized annually to offset future taxable income and tax, respectively. In general, an "ownership change" as defined by Section 382 of the Code results from a transaction or series of transactions over a three-year period resulting in an ownership change of more than 50 percentage points of the outstanding stock of a company by certain stockholders. Since our formation, we have raised capital through the issuance of capital stock on several occasions, which on its own or combined with the purchasing stockholders' subsequent disposition of those shares, may have resulted in such an ownership change, or could result in an ownership change in the future.

We have not completed a study to assess whether an ownership change has occurred or whether there have been multiple ownership changes since our formation due to the complexity and cost associated with such a study and the fact that there may be additional such ownership changes in the future. If we have experienced an ownership change at any time since our formation, utilization of the NOL or R&D credit carryforwards would be subject to an annual limitation under Section 382 of the Code, which is determined by first multiplying the value of our stock at the time of the ownership change by the applicable long-term, tax-exempt rate, and then could be subject to additional adjustments, as required. Any limitation may result in expiration of a portion of the NOL or R&D credit carryforwards before utilization. Further, until a study is completed and any limitation known, no amounts are being considered as an uncertain tax position or disclosed as an unrecognized tax benefit. Due to the existence of the valuation allowance, future changes in our unrecognized tax benefits will not impact our effective tax rate. Any carryforwards that will expire prior to utilization as a result of such limitations will be removed from deferred tax assets, with a corresponding reduction of the valuation allowance.

JOBS Act

On April 5, 2012, the Jumpstart Our Business Startups Act of 2012, or the JOBS Act, was enacted. Section 107 of the JOBS Act provides that an "emerging growth company" can take advantage of the extended transition period provided in Section 7(a)(2)(B) of the Securities Act for complying with new or revised accounting standards. In other words, an "emerging growth company" can delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have irrevocably elected not to avail ourselves of this extended transition period and, as a result, we will adopt new or revised accounting standards on the relevant dates on which adoption of such standards is required for other public companies.

We are in the process of evaluating the benefits of relying on other exemptions and reduced reporting requirements provided by the JOBS Act. Subject to certain conditions set forth in the JOBS Act, as an "emerging growth company," we intend to rely on certain of these exemptions, including without limitation, (i) providing an auditor's attestation report on our system of internal controls over financial reporting pursuant to Section 404(b) of the Sarbanes-Oxley Act and (ii) complying with any requirement that may be adopted by the Public Company Accounting Oversight Board regarding mandatory audit firm rotation or a supplement to the auditor's report providing additional information about the audit and the financial statements, known as the auditor discussion and analysis. We will remain an "emerging growth company" until the earliest of (a) the last day of the fiscal year in which we have total annual gross revenues of $1 billion or more, (b) the last day of our fiscal year

following the fifth anniversary of the date of the completion of this offering, (c) the date on which we have issued more than $1 billion in non-convertible debt during the previous three years or (d) the date on which we are deemed to be a large accelerated filer under the rules of the SEC.

Recently Adopted Accounting Pronouncements

In February 2013, the FASB issued guidance to provide information about the amounts reclassified out of accumulated other comprehensive income, or AOCI, by component. An entity is required to present, either on the face of the financial statements or in the notes, significant amounts reclassified out of AOCI by the respective line items of net income, but only if the amount reclassified is required to be reclassified in its entirety in the same reporting period. For amounts that are not required to be reclassified in their entirety to net income, an entity is required to cross-reference to other disclosures that provide additional details about those amounts. On January 1, 2013, we adopted this standard, which had no impact on our financial position or results of operations.

In June 2011, the FASB issued an amendment to the accounting guidance for presentation of comprehensive income. Under the amended guidance, a company may present the total of comprehensive income, the components of net income, and the components of other comprehensive income either in a single continuous statement of comprehensive income or in two separate but consecutive statements. In either case, a company is required to present each component of net income along with total net income, each component of other comprehensive income along with a total for other comprehensive income, and a total amount for comprehensive income. The amendment is effective for fiscal years ending, and interim periods within those years, beginning after December 15, 2011, and is applied retrospectively. We adopted this amendment in the accompanying financial statements by presenting comprehensive loss in one consecutive statement along with net loss.

In May 2011, the FASB issued amended guidance on fair value measurements. This newly issued accounting standard clarifies the application of certain existing fair value measurement guidance and expands the disclosures for fair value measurements that are estimated using significant unobservable (Level 3) inputs. This accounting standard was effective on a prospective basis for annual and interim reporting periods beginning on or after December 15, 2011. The adoption of this standard has not had a material impact on our financial position or results of operations.

Results of Operations

Three Months Ended March 31, 2012 and 2013 (unaudited)

The following table summarizes the results of our operations for the three months ended March 31, 2012 and 2013:

	Three Months Ended March 31,	
	2012	2013
	(unaudited) (in thousands)	
Collaboration revenue	$ 208	$ 209
Grant revenue	210	263
Research and development expenses	2,481	2,531
General and administrative expenses	1,057	1,297
Total other income (expense), net	(114)	(192)

Revenue. Revenue was $0.5 million for the three months ended March 31, 2013, compared to $0.4 million for the three months ended March 31, 2012. The increase of $0.1 million is due to an increase in reimbursable expenses related to our TATRC grant.

Research and development expenses. Research and development expenses were $2.5 million for the three months ended March 31, 2013, compared to $2.5 million for the three months ended March 31, 2012. An increase in headcount to support the Phase 2 clinical development of ProHema and the preclinical development

of our other product candidates resulted in an increase of $0.3 million in employee compensation-related expense, which was partially offset by a $0.2 million reduction in direct external costs.

General and administrative expenses. General and administrative expenses were $1.3 million for the three months ended March 31, 2013, compared to $1.1 million for the three months ended March 31, 2012. The increase in spending is primarily due to a $0.2 million increase in employee-related expenses related to the expansion of our executive management team.

Other income (expense), net. Other income (expense), net was $(0.2) million for the three months ended March 31, 2013, compared to $(0.1) million for the three months ended March 31, 2012. The increase in other expense was primarily due to an increase in the fair value of the exchangeable share liability.

Years Ended December 31, 2011 and 2012

The following table summarizes the results of our operations for the years ended December 31, 2011 and 2012:

	Years Ended December 31,	
	2011	2012
	(in thousands)	
Collaboration revenue	$ 833	$ 1,268
Grant revenue	337	1,402
Research and development expenses	9,858	11,999
General and administrative expenses	4,605	4,228
Total other income (expense), net	(134)	(682)

Revenue. Revenue was $2.7 million for the year ended December 31, 2012, compared to $1.2 million for the year ended December 31, 2011. The increase of $1.5 million is due to an increase in reimbursable expenses related to our TATRC grant and the achievement of a commercial milestone under our iPSC technology collaboration with BD.

Research and development expenses. Research and development expenses were $12.0 million for the year ended December 31, 2012, compared to $9.9 million for the year ended December 31, 2011. The increase of $2.1 million was primarily due to: an increase in headcount resulting in an increase of $0.4 million in employee compensation-related expense, a $2.0 million increase in external costs for professional consultants, clinical site start-up and clinical supply manufacture and a $0.4 million increase in equipment and supplies, to support clinical development and regulatory activities for ProHema, and an increase in headcount resulting in an increase of $0.2 million in employee compensation-related expense to support the development of our other programs and technologies, which was partially offset by a $0.9 million decrease in unallocated research and development costs.

General and administrative expenses. General and administrative expenses were $4.2 million for the year ended December 31, 2012, compared to $4.6 million for the year ended December 31, 2011. The decrease of $0.4 million was due primarily to a $0.4 million decrease in employee-related costs and a $0.2 million decrease in intellectual property maintenance and prosecution costs, partially offset by a $0.2 million increase in market research related expenses.

Other income (expense), net. Other income (expense), net, was $(0.7) million for the year ended December 31, 2012, compared to $(0.1) million for the year ended December 31, 2011, an increase in other expense of approximately $0.6 million. The increase was primarily due to a $0.3 million loss on extinguishment of debt recognized in 2012 relating to a transaction with a strategic investor pursuant to our Series C preferred stock financing, whereby we issued shares of Series B-1 convertible preferred stock in exchange for shares of our common stock owned by the strategic investor and for the forgiveness of a note payable by us to the strategic investor, and a $0.4 million increase in interest expense as a result of higher average debt balances outstanding in 2012.

Liquidity and Capital Resources

We have incurred losses and negative cash flows from operations since inception. As of March 31, 2013, we had an accumulated deficit of $69.2 million and anticipate that we will continue to incur net losses for the foreseeable future.

From our inception through March 31, 2013, we have funded our consolidated operations primarily through the private placement of preferred stock and convertible notes, commercial bank debt and revenues from collaboration activities and grants. As of March 31, 2013, we had cash and cash equivalents of approximately $4.6 million.

In 2009, we entered into a $3.0 million loan and security agreement collateralized by substantially all of our assets, excluding certain intellectual property. We drew the full $3.0 million available under the loan and security agreement in 2009. In August 2011, the loan and security agreement was amended to: (i) increase the available credit under the loan and security agreement to $4.0 million, (ii) add an additional payment upon maturity equal to 5% of the maximum loan amount and (iii) repay the remaining $0.6 million of outstanding principal related to the original $3.0 million loan. We accessed the full $4.0 million of available credit under the amended loan and security agreement by taking a term advance of $2.0 million in August 2011 and a term advance of $2.0 million in December 2011, each of which are scheduled to be fully paid by August 2014 and December 2014, respectively. The term advances require interest-only payments during the first 12 months from access and equal monthly principal and interest payments during the final 24 months from access. The interest rate on the term advances is fixed at 7.0% per annum for their entire 36-month term of the debt. As of March 31, 2013, the aggregate outstanding principal was $3.3 million.

The following table sets forth a summary of the net cash flow activity for each of the periods indicated (in thousands):

	Years Ended December 31,		Three Months Ended March 31,	
	2011	2012	2012	2013
			(unaudited)	
Net cash used in operating activities	$(12,145)	$(13,274)	$(3,498)	$(3,933)
Net cash provided by (used in) investing activities	200	(709)	(35)	(7)
Net cash provided by (used in) financing activities	7,107	16,683	194	(500)
Net (decrease) increase in cash and cash equivalents	$ (4,838)	$ 2,700	$(3,339)	$(4,440)

Operating activities. Cash used in operating activities increased $0.4 million from $3.5 million for the three months ended March 31, 2012 to $3.9 million for the three months ended March 31, 2013. The primary driver of operating cash requirements was our net loss in each period. During the three months ended March 31, 2012, we used cash from operating activities of $3.5 million while our net loss was $3.2 million. The difference was a result of $0.4 million net change in our operating assets and liabilities, offset by $0.1 million of non-cash charges and deferrals, including depreciation expense and stock-based compensation. During the three months ended March 31, 2013, we used cash from operating activities of $3.9 million while our net loss was $3.5 million. The difference was a result of $0.7 million net change in our operating assets and liabilities, offset by $0.3 million of non-cash charges and deferrals, including depreciation expense and stock-based compensation.

Cash used in operating activities increased $1.2 million from $12.1 million for the year ended December 31, 2011 to $13.3 million for the year ended December 31, 2012. The primary driver of operating cash requirements was our net loss in each period. During the year ended December 31, 2011, we used cash from operating activities of $12.1 million while our net loss was $13.4 million. The difference was a result of $0.3 million net change in our operating assets and liabilities and $0.9 million of non-cash charges and deferrals, including depreciation expense, stock-based compensation deferred revenue and other. During the year ended December 31, 2012, we used cash from operating activities of $13.3 million while our net loss was $14.2 million. The difference was a result of $1.0 million of non-cash charges and deferrals, including depreciation expense, stock-based compensation, deferred rent, loss on extinguishment of debt and other.

Investing activities. During the three months ended March 31, 2012 and 2013, investing activities used cash of $35,000 and $7,000, respectively, for the purchase of property and equipment. During the year ended December 31, 2011, investing activities provided cash of $0.2 million, primarily due to our sale of property and equipment. During the year ended December 31, 2012, investing activities used cash of $0.7 million for the purchase of property and equipment.

Financing activities. Financing activities provided cash of $0.2 million for the three months ended March 31, 2012 and used cash of $0.5 million for the three months ended March 31, 2013. During the three months ended March 31, 2012, we received $0.2 million of proceeds from the issuance of restricted stock awards and the exercise of common stock options. During the three months ended March 31, 2013, we paid down principal of $0.5 million on our outstanding long-term debt. No equivalent principal amounts were paid down in 2012 as the debt was still in its interest-only period.

Financing activities provided cash of $7.1 million for the year ended December 31, 2011 and $16.7 million during the year ended December 31, 2012. During the year ended December 31, 2011, we sold $1.0 million of convertible debt and $3.5 million of Series B convertible preferred stock. In addition, we paid down $0.8 million of principal under our loan and security agreement prior to its amendment, under which we received net cash of an additional $3.4 million. During the year ended December 31, 2012, we issued $16.7 million of Series C convertible preferred stock.

Operating Capital Requirements

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

We believe that the net proceeds from this offering and our existing cash and cash equivalents will be sufficient to fund our projected operating requirements through at least the end of 2014. However, we may require additional capital for the further development of our existing product candidates and may also need to raise additional funds sooner to pursue other development activities related to additional product candidates.

Until we can generate a sufficient amount of revenue from our therapeutic products, if ever, we expect to finance future cash needs through public or private equity or debt offerings. In any event, we do not expect to achieve significant revenue from therapeutic product sales prior to the use of the net proceeds from this offering. Additional capital may not be available on reasonable terms, if at all. If we are unable to raise additional capital in sufficient amounts or on terms acceptable to us, we may have to significantly delay, scale back or discontinue the development or commercialization of one or more of our product candidates. If we raise additional funds through the issuance of additional debt or equity securities, it could result in dilution to our existing stockholders, increased fixed payment obligations and the existence of securities with rights that may be senior to those of our common stock. If we incur indebtedness, we could become subject to covenants that would restrict our operations and potentially impair our competitiveness, such as limitations on our ability to incur additional debt, limitations on our ability to acquire, sell or license intellectual property rights and other operating restrictions that could adversely impact our ability to conduct our business. Any of these events could significantly harm our business, financial condition and prospects.

Our forecast of the period of time through which our financial resources will be adequate to support our operations is a forward-looking statement and involves risks and uncertainties, and actual results could vary as a result of a number of factors. We have based this estimate on assumptions that may prove to be wrong, and we

could utilize our available capital resources sooner than we currently expect. The amount and timing of future funding requirements, both near- and long-term, will depend on many factors, including, but not limited to:

- the design, initiation, progress, size, timing, costs and results of preclinical studies and clinical trials for our product candidates;
- the outcome, timing and cost of regulatory approvals by the FDA and comparable foreign regulatory authorities, including the potential for the FDA or comparable foreign regulatory authorities to require that we perform more studies than, or evaluate clinical endpoints other than those that we currently expect;
- the timing and costs associated with manufacturing our product candidates for clinical trials, preclinical studies and, if approved, for commercial sale;
- the number and characteristics of product candidates that we pursue;
- the extent to which we are required to pay milestone or other payments under our in-license agreements and the timing of such payments;
- the cost of filing, prosecuting, defending and enforcing any patent claims and other intellectual property rights;
- our need to expand our research and development activities, including our need and ability to hire additional employees;
- our need to implement additional infrastructure and internal systems and hire additional employees to operate as a public company;
- the effect of competing technological and market developments; and
- the cost of establishing sales, marketing and distribution capabilities for any products for which we may receive regulatory approval.

If we cannot expand our operations or otherwise capitalize on our business opportunities because we lack sufficient capital, our business, financial condition and results of operations could be materially adversely affected.

Contractual Obligations and Commitments

The following table summarizes our contractual obligations and commitments as of December 31, 2012 that will affect our future liquidity (in thousands):

	Total	Less than 1 Year	1-3 Years	3-5 Years	More than 5 Years
Long-term debt (including interest)	$4,212	$ 2,201	$2,011	$ —	$ —
Operating lease obligation [1]	1,331	883	448	—	—
Total	$5,543	$ 3,084	$2,459	$ —	$ —

(1) On December 3, 2009, we entered into a multi-year building lease for our facility in San Diego, California. The operating lease is noncancelable and expires on June 30, 2014. We have the option to extend this lease by an additional two years.

We also have obligations under various license agreements to make future payments to third parties that become due and payable on the achievement of certain development, regulatory and commercial milestones (such as the start of a clinical trial, filing for product approval with the FDA or other regulatory agencies, product approval by the FDA or other regulatory agencies, product launch or product sales) or on the sublicense of our rights to another party. We have not included these commitments on our balance sheet or in the table above because the achievement and timing of these events is not fixed and determinable. Certain milestones are in advance of receipt of revenue from the sale of products and, therefore, we may require additional debt or equity capital to make such payments. These commitments include:

- Under an exclusive license agreement with Children’s Medical Center Corporation pursuant to which we license certain patents for use in our HSC modulation platform and our pharmacologically-modulated

HSC product candidates, including ProHema, we are required to make annual maintenance payments and payments based upon development, regulatory and commercial milestones for any products covered by the in-licensed intellectual property. The maximum aggregate milestone payments we may be obligated to make per product are $5.0 million. We will also be required to pay a royalty on net sales of products covered by the in-licensed intellectual property in the low to mid single digits. The royalty is subject to reduction for any third-party payments required to be made, with a minimum floor in the low single digits. We have the right to sublicense our rights under this agreement, and we will be required to pay a percentage of any sublicense income.

- Under an exclusive license agreement with the Board of Trustees of the Leland Stanford Junior University pursuant to which we license certain patents relating to the use of Wnt proteins, we are required to make annual maintenance payments and payments based upon development, regulatory and commercial milestones for any products covered by the in-licensed intellectual property. The maximum aggregate milestone payments we may be obligated to make are $0.9 million. We will also be required to pay a royalty on net sales of products covered by the in-licensed intellectual property in the low to mid single digits. The royalty is subject to reduction for any third-party payments required to be made, with a minimum floor in the low single digits. We have the right to sublicense our rights under this agreement so long as we are actively pursuing the development or commercialization of products covered by the patent rights, and we will be required to pay a percentage of any sublicense income.
- Under an exclusive license agreement with the Ottawa Hospital Research Institute pursuant to which we license certain patents relating to the use of Wnt7a proteins, we are required to make annual maintenance payments and payments based upon development, regulatory and commercial milestones for any products covered by the in-licensed intellectual property. The maximum aggregate milestone payments we may be obligated to make per product are $1.4 million. We will also be required to pay a royalty on net sales of products covered by the in-licensed intellectual property in the low single digits. The royalty is subject to reduction for any third-party payments required to be made, with a minimum floor in the low single digits. We have the right to sublicense our rights under this agreement, and we will be required to pay a percentage of any sublicense income.

We enter into contracts in the normal course of business with clinical sites for the conduct of clinical trials, contract research service providers for preclinical research studies, professional consultants for expert advice and other vendors for laboratory and research supplies and services. These contracts generally provide for termination on notice, and therefore are cancelable contracts and not included in the table of contractual obligations and commitments.

Off-Balance Sheet Arrangements

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

Quantitative and Qualitative Disclosures about Market Risks

We are exposed to market risk related to changes in interest rates. As of March 31, 2013, we had cash and cash equivalents of $4.6 million, including $1.3 million of money market mutual 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.

BUSINESS

Overview

We are a clinical-stage biopharmaceutical company engaged in the discovery and development of pharmacologic modulators of adult stem cells to treat orphan diseases, including certain hematologic malignancies, lysosomal storage disorders and muscular dystrophies. Our novel approaches utilize established pharmacologic modalities, including small molecules and therapeutic proteins, and target well-characterized biological mechanisms to enhance the therapeutic potential of adult stem cells. Adult stem cells play a key role in the growth, maintenance and repair of many tissues and organ systems in the body. Due to their natural ability to self-renew, and to regenerate and repair diseased or damaged tissue, adult stem cells also hold considerable therapeutic promise.

Based on our deep understanding of key biological mechanisms that guide the fate of adult stem cells, we have built two modulation platforms that optimize the activity of adult stem cells using both *ex vivo* and *in vivo* techniques. We believe that the product candidates generated by our stem cell modulation platforms have significant potential as life-changing or curative therapeutics across a broad range of orphan indications.

Our HSC modulation platform focuses on the *ex vivo* pharmacologic optimization of hematopoietic stem cells, or HSCs, which are adult stem cells that regenerate all types of blood cells throughout a person's lifespan. HSCs have been used for decades in a potentially curative procedure called hematopoietic stem cell transplant, or HSCT. This procedure is most commonly used in patients with hematologic malignancies to replace a diseased hematopoietic system with a healthy one. While over one million HSCT procedures have been performed to date, we believe HSCs have not been pharmacologically optimized to improve patient outcomes. Our HSC modulation platform has the potential to generate products that will improve patient outcomes in orphan indications by enhancing hematopoietic reconstitution through accelerated, durable engraftment, permitting greater donor matching flexibility, reducing the risk of major side effects and enabling the use of less toxic conditioning regimens.

Our lead product candidate, ProHema, is a pharmacologically modulated HSC therapeutic derived from umbilical cord blood. We have established human proof-of-concept for ProHema in the clinical setting by demonstrating enhanced and durable engraftment, which is an important determinant of patient outcomes. We are presently advancing ProHema in Phase 2 clinical development for hematologic malignancies. We are also pursuing the development of pharmacologically optimized HSC therapeutics for the treatment of certain lysosomal storage disorders, or LSDs, where HSCs have demonstrated the ability to home to and engraft within the central nervous system, or CNS.

Our SSC modulation platform focuses on the *in vivo* pharmacologic activation of satellite stem cells, or SSCs, which are adult stem cells that regenerate muscle throughout a person's lifespan. The regenerative capacity of SSCs in skeletal muscle is exhausted both as we age and in degenerative conditions, such as muscular dystrophies. We have identified Wnt7a as a natural promoter of SSCs to drive muscle regeneration, and we are initially focused on developing Wnt7a analogs for the treatment of muscular dystrophies.

Using our expertise in Wnt protein chemistry, we have engineered pharmacologically optimized analogs of the Wnt protein class. Wnts comprise a family of 19 secreted proteins known to play a key physiological role in developmental and regenerative processes. We have developed injectable analogs of Wnt7a as recombinant human protein therapeutics with muscle regenerative activity. In preclinical models of muscular dystrophies, our Wnt7a protein analogs demonstrated an expansion of the SSC population, an increase in muscle hypertrophy, a reduction in disease-specific muscle fiber necrosis and inflammation, and an increase in muscle strength, all of which were statistically significant. We are presently advancing our Wnt7a analogs in preclinical development with the goal of filing an IND in 2014.

The following table summarizes key information about our platforms and our product candidates:

Product Candidate	Targeted Orphan Disorders	Status
HSC Modulation Platform		
ProHema	Adult hematologic malignancies	Phase 2
ProHema	Pediatric hematologic malignancies	Phase 1
ProHema	LSDs	Preclinical
Second Generation HSC Therapeutic	LSDs	Preclinical
SSC Modulation Platform		
Wnt7a Protein Analogs	Muscular dystrophies	Preclinical
Wnt7a Protein Analogs	Neuromuscular disorders	Preclinical

We plan to continue the validation of our two platforms by demonstrating the clinical benefit of our initial product candidates in three orphan disease settings over the next three years: hematologic malignancies, LSDs and muscular dystrophy. We believe both of our platforms have the ability to generate additional products with therapeutic utility beyond their initial target indications. We also intend to expand our initial indications across a broader spectrum of orphan diseases, including those where allogeneic HSCT holds curative potential and those where muscle regeneration holds disease-modifying potential.

Our platforms and product candidates are based on the research of our scientific founders, all of whom are internationally recognized experts in the field of adult stem cell biology and have contributed significant intellectual capital to our efforts. Our stem cell modulation platforms and our proprietary product candidates are protected by a strong intellectual property position. We have retained worldwide therapeutic rights to product candidates generated by each of our platforms.

Our Novel Approach to *Ex Vivo* HSC Modulation

While over one million HSCT procedures have been performed to date with curative intent, we believe HSCs administered to patients undergoing HSCT have not been pharmacologically optimized to improve patient outcomes. Our HSC modulation platform pioneers a novel approach to improving patient outcomes in HSCT: we enhance the biological properties of HSCs *ex vivo* to drive well-understood biological mechanisms *in vivo* that are critical to the success of the procedure.

We believe our product candidates can significantly improve and enable the curative potential of HSCT in patients with orphan hematologic malignancies and rare genetic disorders. Our HSC modulation platform encompasses the following advantages:

- **We optimize HSCs *ex vivo* to enhance their biological properties.** Our strategies and methods of optimizing HSCs *ex vivo* are designed to specifically enhance the ability of HSCs to achieve desired therapeutic effects *in vivo*. Our proprietary processes induce profound changes in gene expression that are critical to HSC homing and engraftment, which are required for successful patient outcomes.
- **Our platform is applicable across different stem cell sources and a broad range of diseases.** We believe that our approach to the pharmacological enhancement of certain biological properties of HSCs can be applied across various sources of HSCs, such as mobilized peripheral blood, bone marrow and umbilical cord blood. Furthermore, we believe our technology can be employed in both the allogeneic and autologous HSCT settings, independent of the underlying cause of disease. Accordingly, we believe our HSC modulation platform will enable us to develop additional HSC therapeutics for the treatment of a broad spectrum of hematologic malignancies and rare genetic diseases.
- **Our proprietary HSC optimization process can be readily adopted into the HSCT standard of care.** We believe we can efficiently optimize HSCs in a rapid *ex vivo* treatment process conducted on

site at the clinical center. Following this process, the enhanced cells are washed to remove the modulators and can be immediately infused into the patient within the established framework of HSCT.

Our Novel Approach to *In Vivo* SSC Modulation

We are applying our knowledge of stem cell modulation to develop novel biologic therapeutics based on the natural signals that stimulate SSCs *in vivo*. Our SSC modulation platform enables us to evaluate multiple opportunities in skeletal muscle biology and neuromuscular disease. Our initial focus is on the treatment of muscular dystrophies. We believe we are the first company to demonstrate in preclinical studies that SSCs can be pharmacologically modulated *in vivo* to improve muscle regeneration.

Our SSC modulation platform seeks to stimulate the intrinsic regenerative capacity of skeletal muscle. While several promising product candidates have emerged for the treatment of genetically distinct subtypes of muscular dystrophies, such as Duchenne muscular dystrophy, these therapeutics are generally focused on preventing further muscle degeneration. We are not aware of any clinical-stage programs focused on driving the natural regenerative process to increase muscle strength. We believe that our approach is novel and applicable across multiple forms of muscular dystrophies.

We believe that our proprietary Wnt7a analogs validate our therapeutic strategy for the pharmacologic modulation of SSCs and represent a novel and promising approach for the treatment of muscular dystrophies. The advantages of our approach include:

- **Our means of SSC intervention are receptor-mediated and highly-specific.** We leverage the inherent specificity conferred by the endogenous protein Wnt7a and its receptor, Fzd7, which is selectively expressed in muscle tissue. We believe this inherent specificity will enable us to develop therapeutics with a low risk of off-target effects.
- **Our SSC modulation platform is enabled by our expertise in the development of Wnt-based therapeutics.** The therapeutic and regenerative potential of the Wnt protein family is well known. However, Wnt proteins have not been developed as therapeutics because their molecular characteristics prevent their scaled production, formulation, functional specificity and administration for human use. We have systematically applied structural prediction, rational design and protein engineering techniques to overcome these challenges. We believe we are the first company to produce Wnt protein analogs that are amenable to therapeutic development and *in vivo* administration.
- **We drive muscle regeneration through a unique dual mechanism of action.** We have established preclinical proof-of-concept for our Wnt7a protein analogs in models of muscular dystrophy. These studies demonstrate that a single injection of our Wnt7a analogs induced an expansion of the SSC population, an increase in muscle hypertrophy and a decrease in muscle inflammation and damage, all of which were statistically significant. We have demonstrated in preclinical studies that these profound effects result in a significant increase in muscle strength. We believe the ability of our Wnt7a protein analogs to both activate SSC population expansion and increase muscle hypertrophy is a unique dual mechanism of action for the treatment of muscular dystrophies.
- **Our Wnt7a analogs have therapeutic potential as stand-alone or complementary treatments across a broad spectrum of muscular dystrophies.** Most approaches to treat muscular dystrophies seek to slow the degeneration of muscle in genetically distinct subtypes of the disease. In contrast, because our Wnt7a protein analogs enable muscular regeneration, they have the potential to treat a broader spectrum of muscular dystrophies either as stand-alone or complementary therapeutics. We believe that our Wnt-based protein analogs are the only therapeutics in development that actively promote the regeneration of muscle for the treatment of muscular dystrophies.
- **Our SSC modulation platform has potential beyond muscular dystrophies.** Our Wnt7a analogs target the biological mechanisms underlying the body’s intrinsic muscle regenerative process. We believe that enhancing these mechanisms can restore the balance between muscle degeneration and regeneration

for other neuromuscular disorders. Accordingly, our Wnt protein analogs have the potential to treat a wide range of conditions, such as cachexia, atrophy, trauma and sarcopenia.

Our Strategy

Our goal is to realize the therapeutic potential of our two stem cell modulation platforms across a broad range of orphan diseases through the discovery, development and commercialization of first-in-class products. The key elements of our strategy are to:

- **Validate the transformative therapeutic potential of our platforms.** We plan to validate our two stem cell modulation platforms over the next three years by demonstrating the clinical benefit of our initial product candidates in three orphan disease settings: hematologic malignancies, LSDs and muscular dystrophy. We believe the data generated from our planned clinical trials will enable us to establish stem cell modulation as a new treatment modality with application across a broad range of orphan diseases.
- **Efficiently develop and commercialize our orphan therapeutic candidates.** We plan to pursue a fast-to-market strategy through efficient clinical development and expedited regulatory pathways. Due to the nature of our target indications, we believe our pivotal clinical trials will generally require relatively small numbers of patients and measure relatively short-term efficacy endpoints. We also intend to pursue regulatory pathways available for therapies that address rare, life-threatening diseases or provide a major advance in treatment. In addition, because our target markets are highly specialized and concentrated within a limited number of centers of excellence, we intend to build our own focused sales and marketing capabilities to commercialize any products that we may successfully develop in a cost-efficient manner.
- **Leverage lifecycle opportunities.** We believe that our therapeutic approach provides a unique opportunity for strategic lifecycle management and indication expansion. First, because our product candidates have broad therapeutic utility, clinical validation in their initial target indications may allow for the development of these product candidates for the treatment of additional diseases. Second, we intend to leverage both of our platforms to generate additional product candidates to further exploit the therapeutic potential of HSCs and SSCs.

We may also seek partners who can bring therapeutic, development and commercialization capabilities, geographical expertise and financial resources that allow us to leverage the potential of our product platforms within or beyond our initial clinical and commercial focus.

Our HSC Modulation Platform and Product Candidates

Background on Hematopoietic Stem Cells

HSCs are adult stem cells that have the ability to regenerate all types of blood cells throughout a person's lifespan. HSCs have been used for decades in HSCT, a potentially curative or life-saving procedure that is most commonly performed in patients with hematologic malignancies to replace a diseased hematopoietic system with a healthy one. There are two types of HSCT procedures, autologous and allogeneic transplant. In the autologous setting, a patient's own HSCs are recovered from bone marrow aspirates or are mobilized and recovered from peripheral blood for transplant. In the allogeneic setting, matched HSCs are recovered from a related or unrelated donor, or from umbilical cord blood. The standard of care for HSCT in both of these settings uses HSCs that have not been pharmacologically optimized.

The number of HSCT procedures performed has increased steadily over the past two decades and continues to grow. According to a global survey conducted by the Worldwide Network for Blood and Marrow Transplantation, a total of 56,739 HSCT procedures were performed worldwide in 2010, including 26,241 such procedures in the allogeneic setting. It is estimated that approximately 95% of HSCT procedures are performed for the treatment of hematologic malignancies. Additionally, it is estimated that allogeneic HSCT procedures have been used in the treatment of over 50 rare genetic disorders, many of which are life-threatening and lack alternative therapeutic options.

Limitations of Allogeneic HSCT

While allogeneic HSCT is a proven therapeutic intervention strategy with curative potential, it is associated with significant treatment-related limitations and 100-day mortality rates between 20% to 30%. Treatment-related morbidity and mortality for patients undergoing allogeneic HSCT are significantly influenced by several key factors, including:

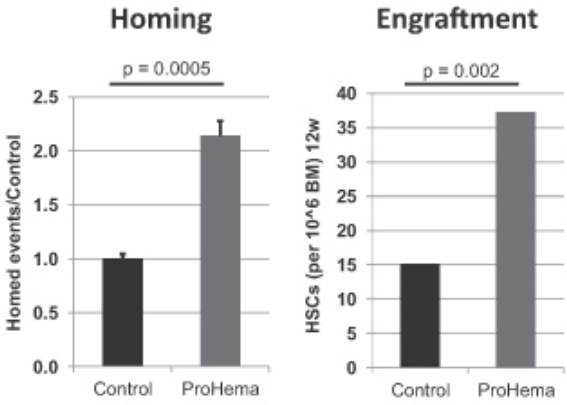
- **HLA matching.** The ability to achieve human leukocyte antigen, or HLA, matching, or the degree to which a donor's and recipient's tissues are immunologically compatible, is a critical determinant of clinical outcomes. If the donor-derived immune system is not sufficiently compatible with the recipient's tissue, a serious complication known as graft-versus-host disease, or GvHD, may occur. Chronic GvHD occurs in 25-50% of patients who undergo HSCT procedures. Greater HLA mismatch also increases the risk of failure to engraft.
- **Cell dose.** Successful transplants require an adequate dose of HSCs in order to ensure timely reconstitution. While a sufficient number of HSCs can usually be collected from healthy adults donating bone marrow or mobilized peripheral blood, some HSC collections may be suboptimal, which increases the risk of delayed or failed engraftment. Despite many advantages, cord blood units generally contain fewer HSCs than traditional HSC sources, which translates into delayed engraftment and a higher risk of failed engraftment. As a result, many of the banked cord blood units are deemed to contain an insufficient number of HSCs for adult transplant.
- **Patient conditioning.** Prior to allogeneic HSCT, chemotherapy or radiation therapy and immunotherapy are administered to eradicate a patient's diseased hematopoietic system and enable donor-derived HSCs to reconstitute a healthy hematopoietic system. HSCT has traditionally required intense myeloablative conditioning, or MAC, which is highly toxic and associated with high rates of transplant-related morbidity. As a result, only younger and healthier patients are typically considered eligible for MAC. More recently, investigators have developed reduced-intensity conditioning, or RIC, regimens that employ significantly lower doses of chemotherapy or radiation and are less toxic. Despite their safety advantages, RIC regimens are associated with lower rates of engraftment and higher rates of relapse.
- **Reconstitution.** The process by which a patient's hematopoietic system reconstitutes, which occurs over the course of several weeks and months after HSCT, is also critical to patient outcomes. Importantly, the components of the hematopoietic system do not return to normal levels at the same rate. Time to engraftment, particularly as measured by time to the engraftment of neutrophils, a type of white blood cell involved in fighting bacterial infections, correlates with key clinical outcomes including the length of hospital stays, rates of serious infections, and overall transplant-related morbidity and mortality.

Advantages of Our HSC Modulation Platform

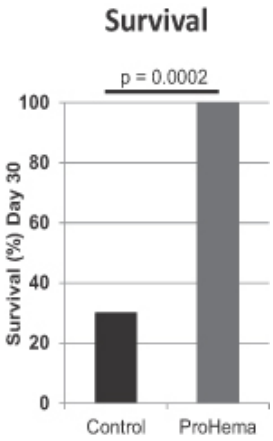
Our HSC modulation platform is designed to address the current limitations of allogeneic HSCT and enhance its curative potential across a broad range of orphan hematologic malignancies and rare genetic disorders. Since our inception, we have worked closely with our scientific founders, who are internationally-recognized leaders in HSC biology, to gain a deep understanding of the molecular pathways involved in homing and engraftment. Extensive genome-wide expression studies have provided key insights that allow us to modulate these signaling networks using a proprietary pathway screening approach. We have also developed sophisticated assays to characterize the molecular and functional properties of HSCs following the *ex vivo* modulation process. These tools have enabled us to optimize the *ex vivo* modulation process by systematically and precisely evaluating key parameters of the incubation conditions, including time, dose, temperature and media. Our HSC modulation platform also utilizes established *in vivo* models of hematopoiesis to rapidly assess and quantify the enhanced properties of our product candidates.

Our scientific founders were the first to demonstrate preclinical proof-of-concept for the *ex vivo* pharmacologic modulation of HSCs using prostaglandin E2 receptor agonists in 2007. Dr. Leonard Zon identified 16, 16-dimethyl prostaglandin E2, which we refer to as FT1050, to be a potent regulator of hematopoiesis. Since then, we have systematically applied our HSC modulation platform to translate this initial

academic discovery into the clinical setting. This involved optimizing the incubation conditions and performing extensive preclinical characterization studies. By modulating HSCs derived from umbilical cord blood with FT1050, we generated our initial product candidate, which we refer to as ProHema. The figure below shows the enhanced homing and engraftment properties of the *ex vivo* modulated human HSCs in a mouse model of HSCT:



We also performed a series of mouse transplantation experiments to determine whether the improved homing and engraftment properties of ProHema translated into improved survival outcomes following transplants with suboptimal HSC numbers. The figure below shows that the majority of lethally irradiated mice in the control group (seven out of ten) died during the 30-day observation period due to insufficient HSC dose, while all of the mice in the ProHema group survived.



Our HSC modulation platform has the potential to enhance the biological properties of HSCs from any source, including umbilical cord blood, peripheral blood and bone marrow, and addresses many of the limitations of the current standard of care for HSCT as follows:

- **Expand the pool of HSC sources.** We believe that the use of HSC sources that are immunologically naïve, such as umbilical cord blood, can increase the likelihood of identifying an HLA-compatible HSC source for allogeneic HSCT and reduce the incidence and severity of GvHD. It is believed that most patients have the chance to rapidly find a well HLA-matched umbilical cord blood unit for use in allogeneic HSCT, given that there are currently over 600,000 publicly-banked cord blood units available worldwide. Enhancing the biological properties of cord blood derived HSCs has the potential to significantly broaden the pool of viable banked cord blood units, and thereby improve the odds of finding the best or a better HLA-matched unit.

- **Overcome cell dose limitations**. We believe that the optimization of HSCs can improve the engraftment potential of allogeneic HSCT, particularly when performed with umbilical cord blood, in which the HSC dose is lower than with other allogeneic HSC sources. As a result, we believe this will enable patients who are potential candidates for HSCT to have greater access to HSC sources, such as umbilical cord blood units that previously would have been considered to contain HSC doses insufficient for HSCT.
- **Enable the use of less toxic conditioning regimens.** By enhancing the biological properties of HSCs, we believe that we can improve the rate of engraftment in the safer RIC setting as compared to MAC. We believe that improving the viability of RIC regimens will widen the adoption of, and broaden the eligible patient populations for, allogeneic HSCT.
- **Enhance HSC engraftment and reconstitution**. We believe that the pharmacologic modulation of HSCs can improve patient outcomes across HSCT by increasing engraftment success rates, accelerating the time to reconstitution and improving the durability of engraftment. In addition, we believe that improving engraftment success rates and accelerating the time to reconstitution will lead to improved patient outcomes and the broader adoption of allogeneic HSCT.

We believe ProHema is the first *ex vivo* modulated HSC product candidate to be evaluated in a clinical trial in patients undergoing HSCT. We have established human proof-of-concept for ProHema in the clinical setting by demonstrating enhanced and durable engraftment, which are important determinants of patient outcomes. The HSC modulation process used in the manufacture of ProHema takes only two hours, can be performed directly in the transplant center, does not require significant changes to existing infrastructure and is compatible with standard of care treatment modalities.

Phase 1b Clinical Proof-of-Concept for ProHema

In September 2011, we completed a Phase 1b clinical trial of ProHema in adult patients with hematologic malignancies undergoing double umbilical cord blood transplant, or UCBT, after a RIC regimen. The primary objective of our Phase 1b clinical trial, referred to as the ProHema-01 trial, was to evaluate the safety of allogeneic HSCT using ProHema plus an unmanipulated cord blood unit. Secondary objectives of the trial included the assessment of time to engraftment and 100-day survival.

The ProHema-01 trial consisted of two cohorts of patients with acute leukemia, non-Hodgkin's lymphoma and myelodysplastic syndrome:

- an inactive cohort of nine patients who received an unmanipulated cord blood unit and a cord blood unit modulated with FT1050 under biologically inactive conditions; and
- the ProHema cohort of 12 patients who received ProHema and an unmanipulated cord blood unit.

The trial was conducted at the Dana Farber Cancer Institute and the Massachusetts General Hospital, and the results were compared against recent historical results from a control group of 53 adult patients with hematologic malignancies undergoing double UCBT at these institutions.

Key Clinical Observations

We observed the following potential clinical benefits in our ProHema-01 trial:

- Treatment with ProHema demonstrated a statistically significant improvement in time to neutrophil engraftment, as compared to the historical control ($p=0.043$). Neutrophil engraftment was defined as peripheral blood neutrophil count above 500 cells per microliter. A p-value is a probability with a value ranging from 0 to 1, which indicates the likelihood that the results of a study are different between treatment and control groups. P-values below 0.05 are typically referred to as statistically significant;
- ProHema improved the cumulative incidence of neutrophil engraftment and the cumulative incidence of platelet engraftment, as defined by peripheral blood platelet count above 20,000 platelets per microliter;

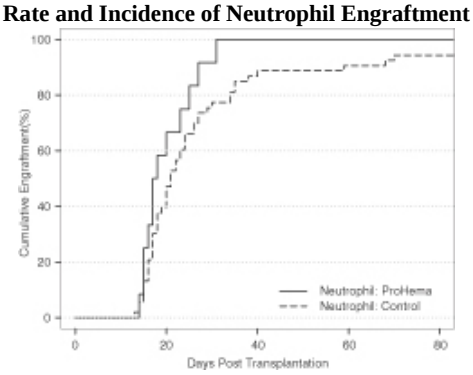
- 100-day survival in the ProHema cohort compared favorably to both the inactive cohort and the historical control;
- there was a low incidence of acute and chronic GvHD in the ProHema cohort; and
- ProHema contributed to durable long-term hematopoietic reconstitution in a significant majority of the patients in the ProHema cohort and compared favorably to the historical control.

The following table shows the results observed in the ProHema-01 trial with respect to the key measures of time to engraftment, cumulative incidence of neutrophil engraftment, rate of failure to achieve neutrophil engraftment and 100-day survival:

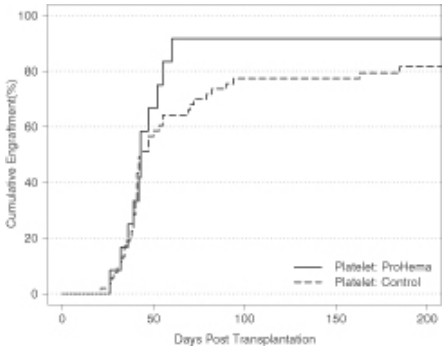
Cohort	Median Time to Engraftment	Cumulative Incidence of Neutrophil Engraftment by Day 26	Rate of Failure to Achieve Neutrophil Engraftment	100-Day Survival
ProHema	17.5 days (range 14 – 31 days)	83%	0%	100%
Inactive	22.0 days (range 14 – 40 days)	67%	11%	89%
Historical	20.5 days (range 13 – 70 days)	70%	6%	87%

The ProHema cohort also compared favorably to both the inactive cohort and the historical control in other measures of engraftment, including the cumulative incidence of platelet engraftment by Day 100 and the rate and incidence of cumulative engraftment as defined by absolute neutrophil count and platelet count. The following graphs show the rate and incidence of absolute neutrophil count and platelet count in the ProHema cohort, as compared to the historical control:

Rate and Incidence of Neutrophil Engraftment



Rate and Incidence of Platelet Engraftment



We also evaluated the incidence of GvHD and observed a low incidence of acute GvHD in the twelve subjects in the ProHema cohort. By Day 100, there was an 8% incidence of Grade II-IV acute GvHD in the ProHema cohort, as compared to 17% in the historical control group. One patient in the ProHema cohort experienced mild chronic GvHD.

Additionally, we performed an assessment of the ProHema cohort and the historical control to determine which of the two cord blood units contributed to long-term hematopoietic reconstitution. This analysis determined that, at Day 100, 83% of patients (10 of 12) in the ProHema cohort had achieved predominant hematopoietic reconstitution with ProHema as opposed to the unmodulated cord blood unit. In contrast, at Day 100, the profile of hematopoietic reconstitution in the historical control was substantially diverse: 34% of patients

engrafted with the first cord administered to a patient; 34% of patients engrafted with the second cord administered to a patient; and 8% of patients persisted in a state referred to as dual chimerism, where both cords contributed to hematopoietic reconstitution, and the remainder either experienced graft failure or died prior to Day 100. With a median follow-up among survivors of 24.6 months, no patient in the ProHema cohort experienced secondary graft failure, or graft failure following an initial period of engraftment.

Safety Assessment

The trial met all established safety criteria and demonstrated that ProHema was well tolerated. Adverse events attributed to ProHema consisted of mild to moderate infusion-related events consisting of rash, nausea, chills, flushing, abdominal pain, and cough, all of which are considered common transplant-related side effects. One subject with known coronary artery disease experienced transient myocardial ischemia that resolved promptly after completion of the infusion.

ProHema-01 Trial Conclusion

We believe the results of our ProHema-01 trial demonstrate human proof-of-concept that the *ex vivo* pharmacologic modulation of HSCs has the potential to improve the key clinical measures of time to, and durability of, neutrophil engraftment. These improvements were demonstrated in allogeneic HSCT using a RIC regimen that is less toxic to patients and an HSC source that increases HLA compatibility and reduces the risk of GvHD.

In an End-of-Phase 1 meeting with the FDA in the first quarter of 2012, we received guidance from the FDA on potential Phase 3 clinical trial endpoints. This guidance suggested that time to engraftment of neutrophils, platelets, or both may be a sufficient primary endpoint to support approval, and that a single Phase 3 trial, enrolling both adult and pediatric subjects, may be sufficient for approval in both age groups, depending on the results.

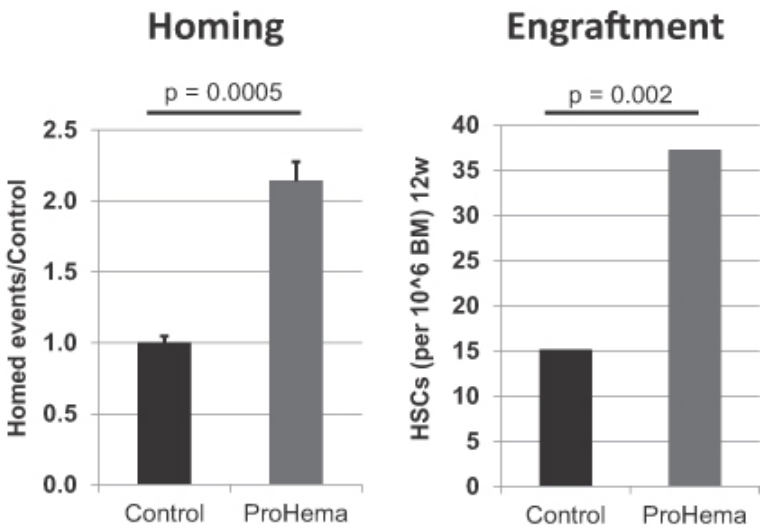
Improved Nutrient-Rich Media Formulation to Enhance the Potency of ProHema

In our ProHema-01 trial, ProHema was manufactured using standard processing media, which is commonly used throughout the clinical setting today for the thawing and washing of umbilical cord blood units. During the second quarter of 2013, we completed additional *in vitro* and animal studies demonstrating that the potency and efficacy profile of ProHema can be significantly improved by using our new nutrient-rich media formulation, which we refer to as our NRM formulation.

The manufacture of ProHema using our improved NRM formulation, as compared to the use of standard processing media, results in increased expression of PGE2-related genes and improved performance in *ex vivo* homing assays. In addition, the new manufacturing conditions also improved the viability, as measured by HSC recovery. The homing potential of HSCs, as measured by an *in vitro* transwell migration assay, was also improved. The results of our studies using *in vitro* assays are summarized below:

Biologic Measure of Activity	Prior Media	NRM
Expression of relevant genes	2-6 fold	9-126 fold
Homing potential	7%	34%
Viable HSC Recovery	88%	107%
Increase in HSC population	62%	131%

These enhanced modulation effects translated into significantly improved homing and a more than two-fold improvement in engraftment in mouse models, as shown in the graphs below:



Based on the data described above, we believe that the use of our NRM formulation will improve ProHema's potency and efficacy profile in the clinical setting. We intend to incorporate our improved NRM formulation into our clinical development program for ProHema.

Phase 2 Clinical Development in Adult Patients with Hematologic Malignancies

In December 2012, we initiated our ProHema-03 trial, a randomized, controlled, Phase 2 multi-center clinical trial of ProHema in adult patients undergoing double UCBT for hematologic malignancies using both MAC and RIC regimens. Our ProHema-03 trial is currently active at eight major allogeneic HSCT centers in the United States but not recruiting. We recently notified the FDA that we have elected to pause enrollment to enable the manufacture of ProHema incorporating our NRM formulation and to generate data to qualify the optimized manufacturing process that incorporates the NRM formulation. We intend to amend our IND to incorporate our NRM formulation for the manufacture of ProHema before the end of 2013. Subject to the consent of the FDA, we expect to resume enrollment of our ProHema-03 trial in 2014.

Prior to our election to pause enrollment of our ProHema-03 trial, nine patients conditioned using a MAC regimen were enrolled into the study, six of whom were randomized to receive ProHema plus an unmanipulated cord blood unit, and three of whom were randomized into the control arm to receive two unmanipulated cord blood units. No patients conditioned using a RIC regimen were enrolled. The three subjects in the control arm engrafted at Days 30, 31 and 40. Three of the six subjects in the ProHema arm engrafted prior to the control median, at Days 14, 19 and 28. Two of the six subjects in the ProHema arm engrafted post the control median at Days 40 and 48, and one of the six subjects in the ProHema arm failed to engraft. No patients experienced secondary graft failure. Two of the six subjects in the ProHema arm died before Day 100, and one subject in the ProHema arm experienced Grade IV acute GvHD. Adverse events attributed to ProHema were limited to common infusion-related side effects. We believe these results are consistent with expected outcomes in adult patients undergoing HSCT using umbilical cord blood after a MAC regimen without ProHema.

Upon resuming enrollment, the trial is expected to enroll 60 additional adult patients across both MAC and RIC regimens using our NRM formulation. Patients in this trial will be randomized, at a ratio of 2:1, with approximately 40 patients receiving ProHema plus an unmanipulated cord blood unit and approximately 20 patients receiving two unmanipulated cord blood units. Prior to randomization, patients will be stratified

based upon whether a RIC or MAC regimen will be employed. The primary endpoint of the trial is the cumulative incidence of neutrophil engraftment by a pre-specified control median. Secondary endpoints include additional measures of engraftment, including time to neutrophil engraftment, cumulative incidence of neutrophil engraftment by Day 42, time to platelet engraftment, cumulative incidence of platelet engraftment by Day 180, as well as rates of graft failure and of GvHD and event-free and overall survival.

If our ProHema-03 trial is successful, we plan to seek additional regulatory guidance with the goal of initiating a Phase 3 registrational trial of ProHema, which may include both adult and pediatric patients, undergoing UCBT for hematologic malignancies. Based on the regulatory guidance obtained to date, and preliminary statistical power calculations, we believe the Phase 3 program could consist of a single trial enrolling approximately 200 patients, with time to engraftment of neutrophils, platelets, or both as an endpoint to support approval.

Clinical Development in Pediatric Patients with Hematologic Malignancies

For pediatric patients, the standard of care in UCBT for the treatment of hematologic malignancies utilizes a single cord blood unit. While the cell dose received by a pediatric patient from a single cord blood unit can be sufficient, data suggests that pediatric patients undergoing single UCBT still suffer from delayed engraftment, high rates of graft failure and high rates of transplant-related morbidity and mortality.

To explore the potential of ProHema in a pediatric patient population, we have initiated a Phase 1 clinical trial to determine safety in the setting of single UCBT in adults with hematologic malignancies, which we refer to as our ProHema-02 trial. Qualifying patients receive the same RIC regimen that was used in our ProHema-01 trial. After conditioning, patients receive a single ProHema cord blood unit. The primary endpoint of the trial is safety. We are also analyzing a range of engraftment measures, as well as rates of GvHD, relapse and survival.

The trial has enrolled eight subjects. Of the eight subjects, six subjects are evaluable, age 19-64 years (median 55.9 years), with the following diagnoses: acute myelogenous lymphoma (four subjects), myelodysplastic syndrome (one subject) and multiple myeloma (one subject). Four of the six evaluable subjects engrafted at Days 17, 19, 22 and 37, and two experienced primary graft failure. No patients experienced secondary graft failure. Survival at 100 days was 100%. No acute or chronic GvHD has been observed to date. Adverse events attributed to ProHema were limited to common transplant-related side effects.

Based on these results and our discussions with the FDA, and subject to FDA approval of the final study protocol, we plan to initiate a Phase 1b clinical trial in children and adolescents with hematologic malignancies, in which patients will receive a single ProHema unit. The primary endpoint of the trial is expected to be cumulative incidence of neutrophil engraftment by Day 26. Secondary endpoints are expected to include additional measures of engraftment, including time to neutrophil engraftment, cumulative incidence of neutrophil engraftment by Day 42, time to platelet engraftment, cumulative incidence of platelet engraftment by Day 180, as well as rates of graft failure and of GvHD and event-free and overall survival. We anticipate commencing enrollment in our planned Phase 1b clinical trial in pediatric patients during 2014 and conducting the trial at one to three clinical centers in the United States. We intend to use our NRM formulation in this trial.

Our Opportunity in Rare Genetic Disorders

Overview

The steady growth in the number of HSCT procedures to treat patients with hematologic malignancies has been paralleled by an increase in the use of HSCT for rare genetic disorders. The treatment of rare genetic disorders requires allogeneic HSCT, as it provides HSCs from a healthy donor, which carry a normal version of the defective gene. It is estimated that over 70 rare, genetic disorders, many of which are life-threatening and lack alternative therapeutic options, have been treated with allogeneic HSCT to date, including:

- LSDs, including Hurler syndrome, Krabbe disease and metachromatic leukodystrophy;
- peroxisomal storage disorders, including adrenoleukodystrophy;
- hemoglobinopathies, such as sickle cell disease and certain thalassemias;

- inherited bone marrow failure syndromes, such as Fanconi anemia and Diamond-Blackfan anemia; and
- inherited immune deficiencies, such as Wiskott-Aldrich syndrome.

The transformative effect of allogeneic HSCT, and UCBT in particular, across these rare genetic disorders has been demonstrated and published in numerous clinical studies, case series and retrospective analyses of multi-national patient registries. For instance, long-term follow up of children with LSDs and peroxisomal storage disorders who underwent allogeneic HSCT has shown that the progressive worsening of many clinical manifestations can be prevented or substantially reduced through early allogeneic HSCT intervention. These effects have been attributed to the ability of HSCs to home to and engraft within the CNS, where they give rise to microglia cells that become a permanent source of enzyme supply through a process called cross-correction.

It is well-recognized that umbilical cord blood has several important advantages over bone marrow and mobilized peripheral blood as a source of HSCs in the setting of allogeneic HSCT for LSDs. First, compared to the hematologic malignancy setting, even more patients lack a suitable related or matched unrelated donor. Second, cord blood can be readily accessed and can reduce time from diagnosis to transplant, a critical factor for patient outcomes, especially in patients with early-onset and rapidly progressing disorders, such as infantile Hurler syndrome or Krabbe disease. Furthermore, there is growing evidence that the proportion of patients achieving normal enzyme levels is higher following allogeneic HSCT with cord blood than with traditional HSC sources, which may improve the chances of reversing or halting the progressive manifestations of the disorder.

Unmet Medical Need

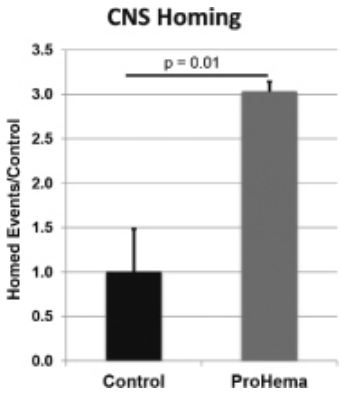
The key factors that determine HSCT patient outcomes in the hematologic malignancy setting are also highly relevant for rare genetic disorders and include:

- **Reconstitution.** Timely and durable reconstitution of donor-derived HSCs is a critical success factor following allogeneic HSCT in patients with rare genetic disorders. Additionally, in patients with demyelinating LSDs, the homing of donor-derived HSCs across the blood-brain barrier is critical to arresting the degenerative effects of demyelination.
- **HLA matching.** The degree of HLA matching is an important determinant of outcome following allogeneic HSCT in rare genetic disorders. Specifically, for certain LSDs, the rapid and irreversible progression of the disease requires urgent intervention and the immediate need to find an HLA-matched HSC source. We believe our ability to use pharmacologically optimized cord blood will reduce the time to transplant and improve patient outcomes.
- **Patient conditioning.** Allogeneic HSCT procedures for rare genetic disorders are routinely performed using MAC regimens, because attempts to utilize RIC regimens have resulted in unacceptably high graft failure rates. The use of these highly toxic MAC regimens in infants and young children with rare genetic disorders is of significant concern. We believe the enhanced engraftment potential of our pharmacologically optimized HSCs will enable the broader adoption of RIC regimens.

Potential of Our HSC Modulation Platform in Rare Genetic Disorders

Given our preclinical findings of enhanced homing and engraftment, as well as the clinical proof-of-concept that we have achieved for our HSC modulation platform in the hematologic malignancy setting, we believe that pharmacologically-modulated HSCs have considerable potential to improve outcomes following allogeneic HSCT for rare genetic disorders. We are initially planning to study an *ex vivo* pharmacologically-modulated HSC therapeutic in pediatric patients with demyelinating LSDs. We plan to evaluate this potential both in an initial clinical trial of ProHema, as well as through a focused research program to identify other product candidates.

Preclinical Data. We have demonstrated in a preclinical model that *ex vivo* modulated cord blood increases the number of donor cells that home and migrate across the blood-brain barrier into the CNS. We treated human cord blood-derived HSCs with FT1050 or vehicle control for two hours at 37°C and injected into sub-lethally irradiated NSG mice. Twenty hours following injections, genomic DNA was isolated from the brain tissue of the mice and the number of human cells in each sample was determined. The figure below shows that homing properties of HSCs derived from human cord blood to the CNS were significantly improved by *ex vivo* modulation with FT1050:



Clinical Plan. We plan to initiate a first clinical trial of ProHema in this patient population in 2014 after filing an IND amendment. The primary objective of the trial will be to evaluate the potential of *ex vivo* enhanced HSCs to enable robust engraftment under RIC regimens, where previous studies have shown that unmodulated cord blood units did not perform well. This trial is expected to enroll patients between the ages of one to 21 years. After conditioning, patients will receive a ProHema unit in combination with an unmodulated unit. The first cohort of subjects will receive a conditioning regimen using a combination of high-dose chemotherapy agents that comprise a standard myeloablative regimen used for such transplants but in which one agent has been dose-reduced by 25%. Subsequent cohorts will receive conditioning regimens that are successively dose-reduced. The primary endpoint of the study will be neutrophil engraftment, such that a reduced intensity dosing regimen can be identified that results in consistent and prompt engraftment. Subjects will also be followed for other measures of engraftment and safety. In addition, subjects will undergo regular cognitive and functional evaluations to measure the impact of the HSCT procedure on developmental milestones. We expect the trial will be conducted at one to three centers that specialize in pediatric cord blood transplantation for rare genetic disorders.

Next-Generation HSC Modulators. We are using our HSC modulation platform to develop second generation therapeutics specifically designed to enhance the homing of HSCs to the CNS to improve delivery of essential enzymes that are deficient in patients with LSDs.

Our SSC Modulation Platform

Therapeutic Potential of SSCs in Muscle Regeneration

Skeletal muscle has a potent natural regenerative capacity. Muscle SSCs are regenerative precursor cells that play a key physiological role in the biological processes that drive skeletal muscle growth, maintenance and repair throughout a person's lifespan. In response to natural molecular triggers from exercise, injury or disease, SSCs become activated, proliferate, and either differentiate into *de novo* muscle fibers or fuse with, and augment, existing muscle fibers. The regenerative capacity of muscle is exhausted both as we age and in degenerative conditions such as muscular dystrophies, where there is a constant cycle of muscle damage and compensatory repair. We are applying our knowledge of stem cell modulation to develop novel biologic therapeutics based on the natural signals that stimulate SSCs *in vivo* to drive muscle regeneration in muscular dystrophies and other neuromuscular diseases and conditions.

Unmet Medical Need in Muscle Dystrophies

Muscular dystrophies encompass a group of rare diseases with diverse genetic bases and pathophysiological manifestations. The most prevalent and well-characterized forms are the X chromosome-linked Duchenne and Becker muscular dystrophies, or DBMDs, in which a loss or deleterious modification to the dystrophin protein results in significant and progressive muscle degeneration. There are many other distinct types of muscular dystrophies resulting from specific genetic mutations or deletions to over 30 distinct genes, including facioscapulohumeral muscular dystrophy, limb-girdle dystrophies and myotonic dystrophy. It is estimated that in the United States, DBMD occurs in one out of 3,500 live births, resulting in approximately 10,000 males living with these diseases. According to a 2007 study, over 80% of patients suffering from DBMD were wheelchair-bound by 14 years of age. In addition, DMBD patients usually do not live to the age of 30. There are no therapeutics specifically approved for the treatment of muscular dystrophies.

A core pathophysiologic phenomenon seen in muscular dystrophies is a cycle of muscle degeneration leading to continuous compensatory SSC activation and differentiation to affect a regenerative response. It is believed that the eventual exhaustion of this regenerative capacity results in accelerated tissue degeneration and, ultimately, significant loss of muscle function. Several promising therapeutics aimed at preventing further muscular degeneration through the reestablishment of dystrophin function are currently in clinical development. These include oligonucleotide exon-skipping of specific mutations in a subset of DBMD patients, stop-codon override approaches and utrophin up-regulation. To our knowledge, there are no clinical-stage programs focused on driving the natural regenerative process to reestablish muscular strength. We believe that restoring the balance between muscle degeneration and regeneration to induce tissue repair represents a promising approach for the treatment of all muscular dystrophies irrespective of the causative genetic mutation.

We have used our knowledge and systematic interrogation of SSC biology to identify specific natural signaling molecules that drive the muscle regenerative response. Further, we have applied our expertise in protein engineering to design protein analogs with therapeutic potential and preferred pharmaceutical development properties.

Our Proprietary Wnt7a Analogs

We have identified Wnt7a, a naturally-occurring secreted protein, as a key regulator of skeletal muscle regeneration. We have demonstrated that a single administration of a Wnt7a analog resulted in a significant expansion of the SSC population and an increase in muscle hypertrophy. We have engineered analogs of Wnt7a and are developing them for regeneration in muscular dystrophies.

The role of Wnt7a as a potent stimulator of SSC population expansion and muscle hypertrophy was first identified by one of our scientific founders, Michael Rudnicki, Ph.D. This activity was shown to be dependent on a receptor known as Fzd7, which is predominantly expressed in skeletal muscle. Based on these findings, we believe that Wnt7a offers a highly-specific means to effect a regenerative response in skeletal muscle in order to treat neuromuscular diseases, irrespective of etiology. We own or have exclusively licensed worldwide rights to the use of Wnt7a in muscle regeneration.

Wnt7a is a member of a wider family of 19 secreted Wnt proteins known to play a central role in the processes of embryonic development, stem cell fate determination, tissue repair and homeostasis. Despite their widely-recognized importance throughout human physiology, to our knowledge, there are no Wnt proteins currently undergoing clinical development. This is primarily due to specific molecular characteristics that prevent their effective development as biologic therapeutics. We have systematically applied structural prediction, rational design and protein engineering techniques to overcome these challenges. We believe we are the first company to produce an analog of a Wnt protein that is amenable to manufacture, formulation and administration for *in vivo* therapeutic use. Our approach to the development of Wnt protein analogs encompasses the following advantages:

- **We have overcome manufacturing challenges.** Natural Wnt proteins are expressed at very low levels in typical biologic manufacturing systems and are extremely difficult to purify while retaining activity. We have engineered Wnt compositions which enable effective, high level expression in commonly used

host cells, thus enabling scaled recombinant manufacturing. We believe our proprietary Wnt compositions also allow scaled protein purification using methods commonly implemented by commercial biologic manufacturing organizations.

- **We have enabled therapeutic formulations.** Natural Wnt proteins have limited solubility in preferred therapeutic excipients. Using structural biology, systematic engineering and signaling activity assessments, we have designed and produced Wnt proteins that retain activity and enable therapeutic formulation to allow *in vivo* administration.
- **Our product candidates can be readily administered.** Natural Wnt proteins are characterized as locally acting signaling molecules, potentially limiting their therapeutic range on administration. We have demonstrated that our Wnt7a analogs induce significant regenerative effects across a whole muscle on a single administration of protein.
- **Our product candidates retain a high degree of specificity.** There are 19 human Wnt proteins and over 15 different receptors and co-receptors that drive a number of diverse signaling pathways and biological mechanisms in a tissue-specific manner. We have engineered Wnt7a analogs that retain specificity for the signaling pathway implicated in muscle regeneration but are inactive in other characterized Wnt signaling pathways, thereby potentially avoiding off-target activity or toxicities.

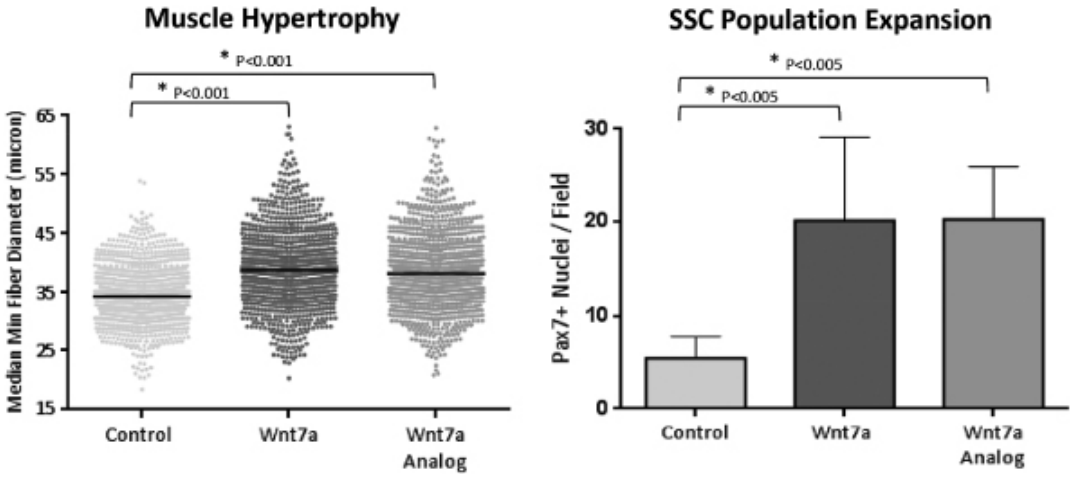
We believe that our knowledge of the role of Wnts in stem cell biology, our proprietary approaches for engineering Wnt-based analogs and their methods of formulation and manufacture represent foundational expertise that can be leveraged beyond Wnt7a. We intend to assess other Wnt-based biologic modulators for use in broader regenerative medicine applications. We own or have exclusively licensed worldwide rights to intellectual property pertaining to the design, composition and methods of manufacture and use of our Wnt analog proteins.

Preclinical Proof-of-Concept for Our Proprietary Wnt7a Analogs

We have demonstrated the therapeutic potential of our proprietary Wnt7a analogs in various preclinical models. They have been shown to expand the population of SSCs, drive muscle hypertrophy, decrease disease-related muscle damage and increase muscle strength with similar potency as naturally-occurring Wnt7a in both wild-type rodents and rodent models of muscular dystrophy, or mdx.

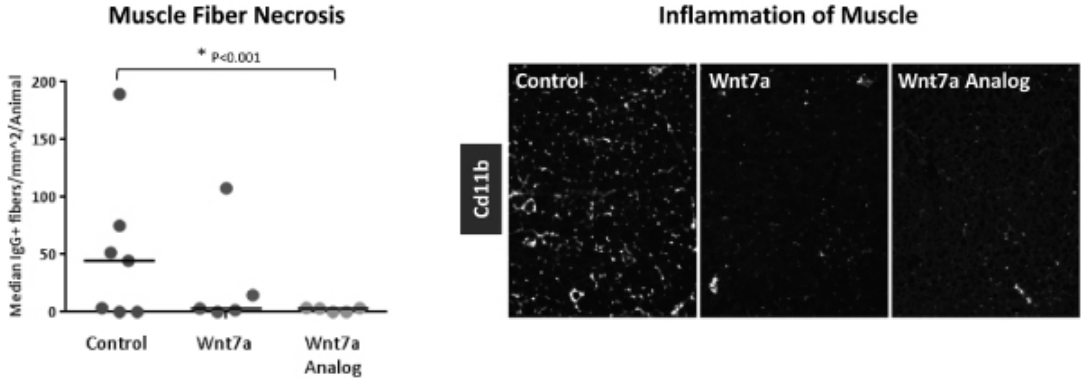
The Unique Dual Mechanism of Action of Wnt7a

A single injection of either Wnt7a or a Wnt7a analog to the *tibialis anterior* muscle of either wild type or mdx mice induces muscle hypertrophy and a significant expansion of the SSC population in a dose dependent manner. These effects are seen at three weeks following a single intramuscular injection of low microgram amounts of protein. In preclinical studies, we demonstrated a statistically significant hypertrophic effect of Wnt7a and a Wnt7a analog relative to control in the wild-type mouse represented by an approximately 20% increase in the median muscle fiber minimum cross-sectional diameter. We also demonstrated a statistically significant increase in the number of muscle SSCs, represented by an approximately three-fold increase in the number of Pax7 positive cell nuclei, a marker for SSCs, in the treated muscle. The figures below show our preclinical results demonstrating an increase in muscle hypertrophy and SSC population expansion:



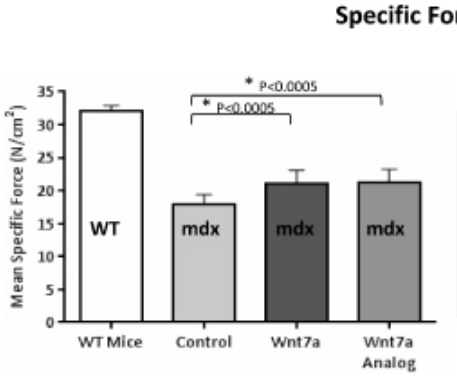
Wnt7a Induced Regeneration Reduces Inflammation and Muscle Damage

Muscle fiber necrosis and inflammation are common abnormalities associated with muscular dystrophies that contribute to tissue fibrosis and a reduction in strength and regenerative capacity. Inducing muscle regeneration in the mdx mouse through a single administration of Wnt7a or a Wnt7a-analog results in increased muscle fiber integrity and reduced inflammatory cell infiltration of the tissue. In preclinical studies, we demonstrated a statistically significant reduction in disease-specific muscle fiber necrosis measured as the mean IgG-positive fibers per unit area of muscle and the reduction in positive staining of a cellular biomarker of inflammation, CD11b, within the muscles of mdx mice. The figures below show these results:



Improvement in Muscular Strength

The mdx rodent model of muscular dystrophy is significantly weaker than a wild-type rodent, as measured by specific force. Specific force is the normalization of force per unit mass of muscle and represents a standard and accurate measure of muscular strength. In preclinical studies, we demonstrated that a single administration of Wnt7a or a Wnt7a analog protein induced a statistically significant increase in the specific force or strength generated by the mdx rodent *tibialis anterior* muscle. The figures below show these results:



Dystrophic Mice	Control	Wnt7a	Wnt7a-Analog
Number of Animals	12	12	12
Specific Force (N/cm²)	17.88 ± 1.52	21.03 ± 2.04	21.23 ± 1.99
P value	N/A	0.0002	0.0001
Force Increase (%)	0	17.6	18.7

Wnt7a Analog Development Strategy for Muscular Dystrophies

We are currently expanding these preclinical assessments to include dose and regimen optimization in rodent models. We also plan to initiate efficacy and pharmacokinetic assessments in a well characterized canine model of muscular dystrophy to assess the effects in larger muscle groups, allowing for a more predictable transition of dose and administration regimen to human trials.

We have identified potential Wnt7a-specific pharmacodynamic biomarkers, which can be attained through a pre- and post-treatment punch biopsy, to accelerate our clinical development process. These include both cellular

effects, such as muscle hypertrophy and SSC population expansion, and molecular signatures based on whole genome expression analysis of Wnt7a-treated muscle. We have identified specific molecular signatures that represent potential biomarkers that may be measured in clinical trials.

We are currently conducting preliminary, non-GLP toxicology assessments with dose escalation, which will inform future IND-enabling toxicology studies. Our initial clinical focus for the Wnt7a analog program is to gain safety information and demonstrate human proof-of-concept in X chromosome-linked dystrophy patients with local administration of therapeutic protein to targeted muscle groups.

Subject to the completion of IND-enabling studies, we plan to file an IND in 2014 to initiate a Phase 1 clinical trial to provide an initial safety assessment in healthy volunteers. In addition, we plan to assess biological activity using histological and gene expression pharmacodynamic markers and measures of muscle strength by electromyography. These biomarkers will enable us to optimize dose and treatment regimens quickly.

Based on the results of our Phase 1 clinical trial, we plan to initiate a study in an X chromosome-linked muscular dystrophy patient population. We believe that the combination of a Phase 1 clinical trial in healthy volunteers, a dose escalation trial in an X chromosome-linked muscular dystrophy population and the establishment of effective pharmacodynamic biomarkers will allow us to efficiently assess both safety and efficacy for our Wnt7a analogs. We also believe these studies will provide a strong foundation for further discussions with the FDA regarding the path to approval in muscular dystrophies.

Indication Expansion Opportunities

We have demonstrated that Wnt7a is both a potent and a specific regulator of SSC population expansion and muscle hypertrophy and integrity. We have identified several Wnt7a analogs that we believe have therapeutic potential. While we are pursuing the development of a lead Wnt7a analog for the treatment of muscular dystrophies, we believe that this analog, as well as certain other Wnt7a analogs, may have potential in treating a wider range of neuromuscular degenerative conditions including cachexia, atrophy, trauma, and sarcopenia. We are currently exploring therapeutic efficacy in additional preclinical models. We believe that the clinical assessment of safety and efficacy of our first Wnt7a analog in healthy volunteers and in muscular dystrophy patients can provide a basis for exploring the therapeutic benefit of Wnt7a in a wider array of neuromuscular disorders.

Additional Research and Discovery Activities

In addition to our two stem cell modulation platforms, we are advancing proprietary technologies for the industrial-scale generation, expansion and maintenance of induced pluripotent stem cells, or iPSCs. The ability to generate iPSCs is recognized to be one of the most important discoveries of the last decade. iPSCs are generated in a process by which fully-differentiated mature cells, such as skin cells or blood cells, are reprogrammed to a less-differentiated, embryonic stem cell-like state through the expression of certain pluripotency genes. Over the past five years, iPSCs have been used to produce cardiomyocytes and hepatocytes for the purposes of conducting drug toxicology testing and to produce other cell types for modeling human diseases, such as Parkinson’s disease, Huntington’s disease and Duchenne’s muscular dystrophy. We are currently deploying our iPSC technology in the development of our stem cell modulators.

Our technology is built upon the discoveries and inventions of two of our scientific founders, Drs. Rudolf Jaenisch and Sheng Ding, both of whom are considered pioneers in the field of iPSC technology. We believe that our proprietary iPSC technology enables both the efficient, high throughput generation of stable, well-qualified iPSCs and the large-scale expansion and maintenance of iPSCs. We have exclusively licensed patents and patent applications, and developed proprietary technologies, that we believe are foundational to the practice of iPSC technology for commercial purposes. The key proprietary features and benefits of our iPSC technology include:

- **Patent-protected cellular compositions of reprogramming.** One of the key pluripotency genes typically relied on for the generation of iPSCs is Oct4. The cellular composition comprising a somatic cell having an exogenous nucleic acid that encodes an Oct4 protein is a patent-protected composition of matter in the United States which we have exclusively licensed for commercial purposes.

- **Patent-protected small molecule combination for reprogramming.** We incorporate a patent-protected small molecule in our culture systems of reprogramming. The use of these systems results in a 50-fold increase in reprogramming efficiency.
- **Proprietary methods for industrial-scale iPSC generation.** We have developed an automated method for high-throughput iPSC generation which directly selects high-quality iPSC cells through proprietary combinations of cell surface antibodies. This method significantly enhances the throughput and quality of cellular reprogramming and enables industrial applications, such as disease modeling and toxicology screening from multiple genetic backgrounds.
- **Proprietary culture systems for iPSC expansion and maintenance.** We have developed a proprietary small molecule-enhanced culture system which enables large-scale iPSC culture expansion while maintaining high quality, homogeneous cells. We believe this culture system enables commercial applications of iPSC technology, such as drug screening and, ultimately, iPSC-based cell therapies.

In September 2010, we entered into a collaboration and license agreement with Becton, Dickinson and Company, or BD. The goal of the collaboration is to provide life science researchers and the pharmaceutical community with reliable access to certain advanced iPSC tools and technologies for use in human disease research, drug discovery and development, and the manufacture of cell-based therapies. Under the collaboration and license agreement, we agreed to co-develop certain stem cell reagent products with BD for a period of three years ending in September 2013, and BD has the right to commercialize any co-developed stem cell reagent products on a worldwide basis.

In June 2012, BD commercially launched the first stem cell product co-developed under the collaboration, BD SMC4, which is a patent-protected, pre-formulated cocktail of small molecules for improving cellular reprogramming efficiencies.

Our Intellectual Property

Overview

We strive to protect our product candidates and our stem cell modulation platforms through a variety of methods, including seeking and maintaining patents intended to cover our products and compositions, their methods of use and processes for their manufacture, our platform technologies and any other inventions that are commercially important to the development of our business. We have entered into exclusive license agreements with various academic and research institutions to obtain the rights to use certain patents for the development and commercialization of our product candidates. 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 to expand our intellectual property portfolio.

Our intellectual property portfolio is currently composed of 38 issued patents and 176 patent applications that we license from academic and research institutions and 24 patent applications that we own, and these patent and patent applications generally provide us with the rights to develop our product candidates in the United States and worldwide. This portfolio covers (i) our HSC modulation platform, including ProHema; (ii) our SSC modulation platform, including our Wnt7a analogs and (iii) our other technologies, such as our iPSC technology. We believe that we have a significant intellectual property position and substantial know-how relating to the modulation of adult stem cells, including HSCs and SSCs.

We continually assess and refine our intellectual property strategy in order to fortify our position in our target market. To that end, we are prepared to file additional patent applications in any of the above fields if our intellectual property strategy requires such filings, or where we seek to adapt to competition or seize business opportunities. Further, we are prepared to file patent applications relating to new technologies we develop soon after the experimental data necessary for a strong application become available and our cost-benefit analyses justify filing such applications.

In addition to filing and prosecuting patent applications in the United States, we typically file counterpart patent applications in additional countries where we believe such foreign filing is likely to be beneficial, including Europe, Japan, Canada, Australia and China.

We cannot be sure that patents will be granted with respect to any of our pending patent applications or with respect to any patent applications we may own or license in the future, nor can we be sure that any of our existing patents or any patents we may own or license in the future will be useful in protecting our technology. Please see "Risk Factors—Risks Related to Our Intellectual Property" for additional information on the risks associated with our intellectual property strategy and portfolio.

Intellectual Property Relating to Our HSC Modulation Platform and ProHema

We own six families of pending U.S. and foreign patent applications covering our HSC modulation platform. This portfolio includes 14 pending applications relating to ProHema and other therapeutic compositions of stem cells that have been pharmacologically modulated to enhance their therapeutic properties, and methods of manufacturing the cellular compositions. Applications in this portfolio include claims covering (i) a therapeutic composition of human HSCs that have been modulated *ex vivo* with an agent, such as a prostaglandin agonist, resulting in increased expression of genes associated with the beneficial biological properties of the cells and (ii) methods of improving HSCT and methods of treating patients requiring hematopoietic reconstitution, such as patients undergoing chemotherapy or radiation therapy for cancer, including hematologic malignancies, and patients with non-malignant blood disorders, as well as disclosures of methods for preparing cell populations for transplant, as well as a cell culture media, including NRM, for improved processing and modulating populations of cells *ex vivo* and methods describing a cell potency assay for determining or validating the therapeutic potential in cell populations. Any U.S. patents issued from these applications will have statutory expiration dates between 2030 and 2034.

We have an exclusive license to a portfolio consisting of two families of issued patents and pending patent applications co-owned by the Children's Medical Center Corporation and The General Hospital Corporation. As of March 15, 2013, we held exclusive rights to four issued patents and 27 pending patent applications in the United States and worldwide relating to methods for promoting tissue growth or regeneration (including of the hematopoietic system) using modulators that up-regulate the prostaglandin signaling pathway or its downstream mediators. These patent rights consist of an issued U.S. patent (U.S. Patent 8,168,428) claiming a method for promoting HSC engraftment through the *ex vivo* modulation of HSCs using FT1050, including HSCs obtained from cryopreserved cord blood, bone marrow and mobilized peripheral blood. Pending applications in the United States and foreign jurisdictions are directed to therapeutic compositions of HSCs derived from cord blood, wherein the cells have been modulated by increasing prostaglandin activity, methods of preparing these compositions, and methods of promoting hematopoietic reconstitution, expansion and self-renewal using modulators that increase prostaglandin signaling activity. Any patents within this portfolio that have issued or may yet issue will have a statutory expiration date in 2027.

We license exclusive rights to two families of patent applications from the Indiana University Research and Technology Corporation claiming methods of enhancing HSCT procedures by altering prostaglandin activity in HSCs and progenitor cells and methods for enhancing gene transduction efficacy in stem cell gene therapy. These applications describe methods of increasing mobilization of stem cells from a stem cell donor, and methods for increasing HSC homing and engraftment in a stem cell transplant recipient. One family of applications is directed to preferentially modulating certain receptors present on HSCs to increase the therapeutic potential of such cells for homing and engraftment. Claims in these applications specifically cover the modulation of umbilical cord blood by altering prostaglandin activity and methods for increasing gene transduction efficacy for gene therapy. These applications are currently pending in the United States and in certain foreign jurisdictions, and U.S. patents, if issued, from the applications could have terms expiring in 2029 or 2030.

We also license from the University of Rochester on exclusive terms a family of patent applications pending in the United States, Japan and the European Patent Office covering methods of expanding HSC populations *in vivo* or *ex vivo* using compositions comprising prostaglandin or a prostaglandin receptor agonist, including methods of

selectively expanding highly proliferative short term HSCs to decrease recovery time in patients undergoing HSCT. Any U.S. patents that may issue from these applications would have a statutory expiration date in 2027.

To supplement our rights to develop and commercialize ProHema, we also have exclusive rights under additional license agreements with academic institutions to patents and patent applications that cover various methods for enhancing HSCT and modulating HSCs, including methods for increasing HSC numbers, promoting engraftment and increasing stem cell mobilization.

Intellectual Property Relating to Our SSC Modulation Platform and Wnt Analogs

In support of our program for the modulation of SSCs using Wnt analogs, we own pending patent applications in the United States and internationally pursuant to the Patent Cooperation Treaty covering compositions of matter, including Wnt polypeptide analogs having production and formulation advantages, as well as formulations containing such Wnt analogs suitable for local and systemic administration, and methods of preparing such Wnt proteins and formulations. These applications specifically disclose and claim our proprietary Wnt7a analogs and formulations containing these Wnt7a analogs that have enhanced production characteristics. Our applications also describe methods of using our novel Wnt analogs for the regeneration of injured or diseased muscle tissue, and include claims to methods of treating a spectrum of diseases and conditions affecting muscle and muscle degenerative diseases, such as muscular dystrophies. Any U.S. patents that may issue from these applications will have a statutory expiration date in 2032 or 2033.

We also license exclusive rights from the Board of Trustees of the Leland Stanford Junior University, or Stanford, to a PCT application directed to novel Wnt proteins that provide enhanced characteristics for producing therapeutic formulations of Wnt proteins, formulations of such proteins, and methods of manufacturing such proteins. Patent protection, to the extent it issues, would be expected to extend to 2032.

We also obtained rights, as the successor in interest to Verio Therapeutics, Inc., or Verio, to a portfolio of U.S. and international patents and patent applications owned by the Ottawa Hospital Research Institute, or OHRI, that supports our program for the treatment of muscle degeneration. These applications were licensed exclusively to Verio under a restated license agreement between Verio and OHRI effective April 2010. This portfolio includes patent applications directed to a novel population of SSCs, enhanced Wnt protein analogs, and the modulation of SSCs to promote muscle regeneration. These issued patents and applications include claims to compositions of novel stem cell populations and methods of treating muscle degenerative disorders by driving SSC population expansion and using small molecules or proteins to promote muscle tissue formation and muscle hypertrophy. These issued patents and any patents that may issue from these pending patent applications will expire on dates ranging from 2022 to 2033.

iPSC Intellectual Property

We own an international patent application that covers our proprietary small molecule-enhanced cell culture system which enables large-scale iPSC culture expansion while maintaining high quality, homogeneous cells. This application also covers a method for industrial-scale iPSC generation. Any patents issued from this application will expire in 2031.

We have an exclusive license in commercial fields, including for drug discovery and therapeutic purposes, to a portfolio of four patent families including issued patents and pending applications broadly applicable to the reprogramming of somatic cells. This portfolio covers the generation of human pluripotent cells from somatic cells, and includes two issued patents (U.S. Patents 8,071,369 and 7,682,828) claiming compositions employed in reprogramming mammalian somatic cells to a less differentiated state (including to a pluripotent state). These issued patents and any patents that may issue from these pending patent applications will expire on dates ranging from 2024 to 2029.

We also have an exclusive license to a portfolio of seven patent families relating to compositions and methods for reprogramming mammalian somatic cells, which covers non-genetic and viral-free reprogramming mechanisms, including the use of various small molecule classes and compounds and the introduction of cell-penetrating proteins to reprogram mammalian somatic cells. This portfolio includes an issued patent (U.S. Patent

8,044,201) that provides composition of matter protection for a small molecule, thiazovivin, that improves the efficiency of induction of reprogramming in somatic cells, and compositions and methods of using the small molecule. Any issued patents and any patents that may issue from pending patent applications in this portfolio will have statutory expiration dates ranging from 2026 to 2032.

Our Material Technology License Agreements

Children's Medical Center Corporation

In May 2009, we entered into a license agreement with Children's Medical Center Corporation, or CMCC, for rights relating to therapeutic compositions of modulated HSCs and methods for promoting reconstitution of the hematopoietic system using modulators of the prostaglandin pathway, as described in more detail above under "Intellectual Property Relating to Our HSC Modulation Platform and ProHema." Under our agreement with CMCC, we acquired an exclusive royalty-bearing, sublicensable, worldwide license to make, use and sell products covered by the licensed patent rights, and to perform licensed processes, in each case, in all fields. CMCC retains a non-exclusive right to practice and use the patent rights for research, educational, clinical or charitable purposes, and also to license other academic and nonprofit organizations to practice the patent rights for research, educational, and charitable purposes (but excluding any clinical use and commercialization of the patent rights to the extent granted to us under the license agreement). Our license is also subject to pre-existing rights of the U.S. government and rights retained by the Howard Hughes Medical Institute and the General Hospital Corporation to use the patent rights for research purposes. Additionally, if we make any discovery or invention that is described in a patent application and is not within the scope of the licensed patent rights but would not have been made but for the licensed patent rights, we are required to disclose the invention to CMCC and enter into a non-exclusive license agreement with CMCC, for no more than a nominal fee, for CMCC to practice the invention solely for internal research purposes or clinical purposes and not for commercial purposes.

Under the terms of the license agreement, we are required to pay to CMCC a yearly license maintenance fee during the term of the agreement. We also are required to make payments to CMCC of up to $5.0 million per product in development, regulatory and sales milestones. If commercial sales of a licensed product commence, we will pay CMCC royalties at percentage rates ranging in the low to mid single digits on net sales of licensed products in countries where such product is protected by patent rights. Our obligation to pay royalties continues on a country by country basis until the expiration of all licensed patent rights covering licensed products in such country, and our royalty payments will be reduced by other payments we are required to make to third parties until a minimum royalty has been reached. In the event that we sublicense the patent rights, CMCC is also entitled to receive a percentage of the sublicensing income received by us.

Under the license with CMCC, we are obligated to use commercially reasonable efforts to bring a licensed product to market as soon as practicable, and also to use good faith and diligent efforts to manufacture and distribute a licensed product, and make licensed products reasonably available to the public during the term of the agreement. We are also required to use good faith and diligent efforts to meet the milestones set forth in development plans as part of the agreement, subject to any revisions to the development plans that may be permitted under certain circumstances. Additionally, if a third party expresses interest in an area under the license that we are not pursuing, under the terms of our agreement with CMCC, we may be required to sublicense rights in that area to the third party.

The agreement will continue until the last to expire of the patent rights. We may terminate the agreement by providing prior written notice to CMCC, and CMCC has the right to terminate the agreement if we fail to pay royalties or otherwise materially breach the agreement and fail to cure such breach within a specified grace period. CMCC may also terminate the agreement should we cease operations or in the event of our bankruptcy or insolvency.

The Board of Trustees of the Leland Stanford Junior University

In May 2013, we entered into an exclusive license agreement with Stanford for rights relating to novel Wnt analogs. Under our agreement, Stanford granted us an exclusive worldwide license to make, use and sell Wnt

proteins and compositions of such proteins that are covered by the licensed patent rights for the treatment, prevention, and palliation of diseases, conditions, syndromes and maladies of humans and animals. The rights exclusively licensed to us under the license are described in more detail above under “Intellectual Property Related to Our SSC Modulation Platform and Wnt Analogs.”

Stanford retains the right, on behalf of itself and all other non-profit academic research institutions, to practice under the patent rights for any non-profit purpose, including sponsored research and collaborations. We may grant sublicenses to third parties so long as we are actively pursuing the development or commercialization of products covered by the patent rights. We may also be required to sublicense our rights under the agreement at Stanford’s request under certain conditions, including if we are unwilling or unable to serve a potential market or territory and there is a third party willing to be a sublicensee in such market or territory.

We are obligated to pay to Stanford a yearly license maintenance fee during the term of the agreement, but we may offset the maintenance fee against earned royalty payments due on net sales occurring in that year. Stanford is entitled to receive a royalty as a percentage of net sales of licensed products, ranging from the low to mid single digits. Our agreement contains provisions for royalty offsets to the extent we need to obtain any rights from third parties to make, use, or sell the licensed products, subject to a minimum floor in the single digits. We have agreed to pay Stanford a percentage of non-royalty revenue we receive from our sublicensees, with the amount owed decreasing if we enter into the applicable sublicense agreement after meeting certain clinical milestones and, should we sublicense rights under the agreement with other patent rights, with the amount owed being apportioned between the patent rights under the agreement and any other rights sublicensed with the patent rights. In addition, we are obligated to pay Stanford up to approximately $900,000 upon the achievement of specific intellectual property, clinical and regulatory milestone events.

Under the license with Stanford, we are obligated to use commercially reasonable efforts to develop, manufacture, and commercialize at least one licensed product; to develop markets for such licensed products; and to meet certain development milestones as agreed upon between us and Stanford.

The agreement terminates on a country-by-country basis upon the last to expire of the patent rights in such country. We may terminate the agreement by providing prior written notice to Stanford, and Stanford has the right to terminate the agreement if we fail to achieve certain milestones or make payments under the agreement, or are not actively pursuing development of a licensed product, or if we otherwise materially breach the agreement and fail to cure such breach within a specified grace period.

Ottawa Hospital Research Institute

We acquired Verio in April 2010, and as the successor to Verio we acquired rights to various patents and patent applications pursuant to a restated license agreement between OHRI and Verio, which we refer to as the OHRI License. The licensed patents and patent applications under the OHRI License include issued patents and patent applications relating to the use of Wnt7a and analogs for the treatment of muscle degeneration, as described in more detail above under “Intellectual Property Relating to Our SSC Modulation Platform and Wnt Analogs.”

Through the OHRI License, we obtained an exclusive, worldwide, royalty-bearing license, with the right to sublicense, to develop, make, use and sell products covered by the licensed patent rights in all fields. OHRI retains the right under the OHRI License to practice the licensed technology and patent rights for non-commercial, research and academic purposes. We are obligated to pay OHRI an annual license maintenance fee, which is creditable towards any royalties owed under the OHRI License. We are also required to make payments to OHRI of up to CDN$1.4 million per product in connection with development, regulatory and commercial milestones. OHRI is entitled to receive a royalty in the low single digit range on net sales of licensed products, and we may offset any payments made to third parties to obtain rights needed for the commercialization of a licensed product against royalties payable to OHRI, provided that such expenses in a given year may not be credited against more than a specified percentage of the royalties payable to OHRI in such year. We have the right to sublicense our rights under OHRI License, and we are obligated to pay OHRI a percentage of any sublicense income.

Under the OHRI License, we are required to use commercially reasonable efforts to exploit the licensed patent rights in countries where it is commercially reasonable to develop licensed products, and to commercialize licensed products. We must also use commercially reasonable efforts to achieve development benchmarks described in the agreement in accordance with the specified time periods. If we fail to achieve a development benchmark in accordance with its applicable timeline, and OHRI determines that we have not used commercially reasonable efforts to develop the applicable product, OHRI may convert our license to the related patent rights to a non-exclusive license or may terminate the agreement, subject to our right to cure such deficiency or extend the timeline for achieving such benchmark once upon the payment of a fee.

We may terminate the OHRI License by providing ninety days' written notice to OHRI. OHRI may terminate the OHRI License if we materially breach the license agreement and fail to cure the breach within a grace period, or if we become insolvent or bankrupt. The OHRI License otherwise expires upon the expiration of the last to expire of the licensed patents.

Manufacturing

We do not own or operate, and currently have no plans to establish, any of our own manufacturing facilities. Other than small amounts of compounds and proteins that we may synthesize ourselves for preclinical testing, we currently rely, and expect to continue to rely, on third party contract manufacturing organizations, or CMOs, for the manufacture of our required raw materials and proteins, including FT1050, the small molecule HSC modulator used in manufacturing ProHema.

ProHema Manufacturing

ProHema (formally referred to as ProHema-CB Suspension for Infusion), is a composition of pharmacologically-modulated human cord blood cells. ProHema is produced by treating qualified human umbilical cord units with FT1050 in a multistep process that is performed on the day of transplantation in relative close proximity to the recipient, such that it may be administered within minutes to one or two hours after release. The cord blood units, or CBUs, therefore never leave the vicinity of the clinical center, eliminating the risk that shipment to a distant offsite manufacturing facility may result in delivery delays.

ProHema is manufactured on the same day as product administration, corresponding to Day 0 of the transplant regimen. A cryopreserved CBU that meets clinical protocol criteria for the manufacturing process is used as the starting cellular source material. These CBUs are identified through online search facilities that are able to identify potentially suitable CBUs from cord blood banks around the world, based upon a patient's HLA type and cell dose requirements.

The manufacturing process consists of treating the physician-selected CBU with FT1050 in our proprietary two-hour modulation process. After the cells are modulated, an automated wash is performed to reduce residual FT1050 prior to administration of ProHema. After in-lab filtration and final packaging and labeling, the final product consists of *ex vivo* modulated human cord blood cells. ProHema is then tested in a variety of ways prior to release.

ProHema is manufactured at clinical cell processing facilities operated by or affiliated with our clinical sites. Although some of these facilities may be certified GMP cell manufacturing environments, the ProHema manufacturing process consists largely of closed production, which we believe minimizes the requirement for full GMP environmental monitoring and control. One objective of our product development program is to close the ProHema manufacturing process to the point that it may be conducted by the majority of clinical cell processing facilities that are otherwise capable of handling standard HSC products for allogeneic HSCT.

In addition to FT1050, we use other components in the manufacturing of ProHema, including components used in our NRM formulation, as well as disposable materials such as bags and tubing sets. To date, we have obtained the FT1050 starting material for ProHema in our preclinical studies and clinical trials from one third-party manufacturer. We obtain our supply of FT1050 for our clinical trials from this manufacturer on a purchase order basis under a clinical supply manufacturing agreement, and do not have any current contractual

relationships for the commercial manufacture and supply of bulk FT1050 substance for manufacturing ProHema. If our current third-party manufacturer of FT1050 should become unavailable to us for any reason, we believe that there are several potential replacements, although we may incur some delay in identifying and qualifying such replacements. We intend to source other components used in the manufacturing of ProHema, including those that comprise our NRM formulation, from other third-party suppliers.

Wnt7a Protein Manufacturing

Our Wnt7a analogs are recombinant proteins generated from a stably-transfected mammalian cell expression system. Our initial supply of Wnt7a analogs used in our preclinical efficacy and pharmacokinetic studies was synthesized within our laboratories by our scientists. Other than small amounts of proteins and compounds that we may synthesize ourselves for preclinical testing, we expect to rely on third parties for the manufacture of the Wnt7a analog any other Wnt-based product candidates that we may develop. We are currently selecting the contract manufacture organization for master cell banking, process development and ultimate cGMP manufacture of our Wnt7a analog therapeutic.

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.

Many of our competitors will have substantially greater financial, technical and human resources. Accordingly, our competitors may be more successful in developing or marketing products and technologies that are more effective, safer or less costly. Additionally, our competitors may obtain regulatory approval for their products more rapidly and may achieve more widespread market acceptance.

There are several clinical-stage development programs that seek to improve human UCBT through the use of *ex vivo* expansion technologies to increase the quantity of HSCs for use in HSCT or the use of *ex vivo* differentiation technologies to increase the quantity of hematopoietic progenitor cells for use in HSCT. Companies active in this area include, but are not limited to, Gamida Cell Ltd., Biotest Pharmaceuticals Corporation, Aldagen, Inc., a wholly-owned subsidiary of Cytomedix, Inc., Novartis Pharmaceuticals Corporation and Celerant Technology Corp.

Currently, there are no approved pharmaceutical products specifically developed for the treatment of muscular dystrophies. We are aware of several other companies developing therapies that are in various stages of development for the treatment of muscular dystrophies, including Prosensa Holding B.V., Sarepta Therapeutics Inc., PTC Therapeutics, Inc., Summit Corporation plc, Halo Therapeutics LLC, and Tivorsan Pharmaceuticals, Inc.

Government Regulation

In the United States, the FDA regulates biological products under the Federal Food, Drug, and Cosmetic Act, or FDCA, and the Public Health Service Act, or PHS Act, and related regulations. Biological products are also subject to other federal, state, local, and foreign statutes and regulations. The FDA and comparable regulatory agencies in state and local jurisdictions and in foreign countries impose substantial requirements upon the clinical development, manufacture and marketing of biological products. These agencies and other federal, state, local, and foreign entities regulate research and development activities and the testing, manufacture, quality control, safety, effectiveness, packaging, labeling, storage, distribution, record keeping, reporting, approval, advertising and promotion of our products. Failure to comply with the applicable U.S. regulatory requirements at any time during the product development process, including clinical testing, approval process or after approval may subject an applicant to administrative or judicial sanctions.

Government regulation may delay or prevent marketing of product candidates for a considerable period of time and impose costly procedures upon our activities. The testing and approval process requires substantial time, effort, and financial resources, and we cannot be certain that the FDA or any other regulatory agency will grant approvals for ProHema or any future product candidates on a timely basis, if at all. The FDA's policies may change and additional government regulations may be enacted that could prevent or delay regulatory approval of ProHema or any future product candidates or approval of new disease indications or label changes. We cannot predict the likelihood, nature or extent of adverse governmental regulation that might arise from future legislative, judicial, or administrative action, either in the United States or abroad.

Marketing Approval

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

- completion of nonclinical laboratory and animal tests according to good laboratory practices, or GLPs, and applicable requirements for the humane use of laboratory animals or other applicable regulations;
- submission to the FDA of an IND application which must become effective before human clinical trials may begin;
- performance of adequate and well-controlled human clinical trials according to the FDA's regulations commonly referred to as good clinical practices, or GCPs, and any additional requirements for the protection of human research subjects and their health information, to establish the safety and efficacy of the proposed biological product for its intended use or uses;
- submission to the FDA of a Biologics License Application, or BLA, for marketing approval that includes substantive evidence of safety, purity, and potency from results of nonclinical testing and clinical trials;
- satisfactory completion of an FDA pre-approval inspection of manufacturing facilities where the biological product is produced to assess compliance with good manufacturing practices, or GMPs, to assure that the facilities, methods and controls are adequate to preserve the biological product's identity, strength, quality and purity and, if applicable, the FDA's current good tissue practices, or GTPs, for the use of human cellular and tissue products to prevent the introduction, transmission or spread of communicable diseases;
- potential FDA audit of the nonclinical study sites and clinical trial sites that generated the data in support of the BLA; and
- FDA review and approval, or licensure, of the BLA which must occur before a biological product can be marketed or sold.

U.S. Biological Products Development Process

Before testing any biological product candidate in humans, the product candidate enters the nonclinical testing stage. Nonclinical tests include laboratory evaluations of product chemistry, toxicity and formulation, as well as animal studies to assess the potential safety and activity of the product candidate. The conduct of the nonclinical tests must comply with federal regulations and requirements including GLPs.

Prior to commencing the first clinical trial, the clinical trial sponsor must submit the results of the nonclinical tests, together with manufacturing information, analytical data, any available clinical data or literature and a proposed clinical protocol, to the FDA as part of an initial IND application. Some nonclinical testing may continue even after the IND application is submitted. The IND automatically becomes effective 30 days after receipt by the FDA unless the FDA, within the 30-day time period, raises concerns or questions about the conduct of the clinical trial and places the clinical trial on a clinical hold. In such case, the IND sponsor must resolve any outstanding concerns with the FDA before the clinical trial may begin. Further, an independent institutional review board, or IRB, for each site proposing to conduct the clinical trial must review and approve the plan for any clinical trial before it commences at that site. An IRB is charged with protecting the welfare and rights of study subjects and

considers such items as whether the risks to individuals participating in the clinical trials are minimized and are reasonable in relation to anticipated benefits. The IRB also approves the form and content of the informed consent that must be signed by each clinical trial subject or his or her legal representative and must monitor the clinical trial until completed. The FDA or IRB may impose clinical holds on a biological product candidate at any time before or during clinical trials due to safety concerns or non-compliance. If the FDA imposes a clinical hold, trials may not recommence without FDA or IRB authorization and then only under terms authorized by the FDA and IRB. Accordingly, we cannot be sure that submission of an IND application will result in the FDA allowing clinical trials to begin, or that, once begun, issues will not arise that will result in the suspension or termination of such trials.

Clinical trials involve the administration of the biological product candidate to healthy volunteers or patients under the supervision of qualified investigators, generally physicians not employed by or under the trial sponsor's control. Clinical trials are conducted under protocols detailing, among other things, the objectives of the clinical trial, dosing procedures, subject selection and exclusion criteria, and the parameters to be used to monitor subject safety, including stopping rules that assure a clinical trial will be stopped if certain adverse events should occur. Each protocol and any amendments to the protocol must be submitted to the FDA as part of the IND and to the IRB.

For purposes of BLA approval, human clinical trials are typically conducted in three sequential phases that may overlap:

- Phase 1—The biological product is initially introduced into healthy human subjects and tested for safety. In the case of some products for severe or life-threatening diseases, especially when the product may be too inherently toxic to ethically administer to healthy volunteers, the initial human testing is often conducted in patients. These trials may also provide early evidence on effectiveness.
- Phase 2—These trials are conducted in a limited number of patients in the target 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. Multiple Phase 2 clinical trials may be conducted by the sponsor to obtain information prior to beginning larger and more expensive Phase 3 clinical trials.
- Phase 3—Phase 3 trials are undertaken to provide statistically significant evidence of clinical efficacy and to further evaluate dosage, potency, and safety in an expanded patient population at multiple clinical trial sites. They are performed after preliminary evidence suggesting effectiveness of the product has been obtained, and are intended to establish the overall benefit-risk relationship of the investigational product, and to provide an adequate basis for product approval and labeling.

Post-approval clinical trials, sometimes referred to as Phase 4 clinical trials, may be conducted after initial marketing approval. These trials may be required by the FDA as a condition of approval and are used to gain additional experience from the treatment of patients in the intended therapeutic indication, particularly for long-term safety follow-up. The FDA now has express statutory authority to require post-market clinical trials to address safety issues. All of these trials must be conducted in accordance with GCP requirements in order for the data to be considered reliable for regulatory purposes.

During all phases of clinical development, regulatory agencies require extensive monitoring and auditing of all clinical activities, clinical data, and clinical trial investigators. Annual progress reports detailing the results of the clinical trials must be submitted to the FDA. Written IND safety reports must be promptly submitted to the FDA and the investigators for serious and unexpected adverse events; any findings from other studies, tests in laboratory animals or in vitro testing that suggest a significant risk for human subjects; or any clinically important increase in the rate of a serious suspected adverse reaction over that listed in the protocol or investigator brochure. The sponsor must submit an IND safety report within 15 calendar days after the sponsor determines that the information qualifies for reporting. The sponsor also must notify the FDA of any unexpected fatal or life-threatening suspected adverse reaction within seven calendar days after the sponsor's initial receipt of the information.

Phase 1, Phase 2, and Phase 3 clinical trials may not be completed successfully within any specified period, if at all. Regulatory authorities, a data safety monitoring board or the sponsor may suspend a clinical trial at any

time on various grounds, including a finding that the participants 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 biological product has been associated with unexpected serious harm to patients.

Our ongoing and planned clinical trials for our product candidates may not begin or be completed on schedule, if at all. Clinical trials can be delayed for a variety of reasons, including delays in:

- obtaining regulatory approval to commence a trial;
- reaching agreement with third-party clinical trial sites and their subsequent performance in conducting accurate and reliable trials on a timely basis;
- obtaining IRB approval to conduct a trial at a prospective site;
- recruiting patients to participate in a trial; and
- supply of the biological product.

Typically, if a biological product is intended to treat a chronic disease, as is the case with ProHema, safety and efficacy data must be gathered over an extended period of time, which can range from six months to three years or more. Success in early stage clinical trials does not ensure success in later stage clinical trials. Data obtained from clinical activities are not always conclusive and may be susceptible to varying interpretations, which could delay, limit or prevent regulatory approval.

Concurrent with clinical trials, companies usually complete additional animal studies and must also develop additional information about the physical characteristics of the biological product as well as finalize a process for manufacturing the product in commercial quantities in accordance with GMP requirements. To help reduce the risk of the introduction of adventitious agents with the use of biological products, the PHS Act emphasizes the importance of manufacturing control for products whose attributes cannot be precisely defined. The manufacturing process must be capable of consistently producing quality batches of the product candidate and, among other things, the sponsor must develop methods for testing the identity, strength, quality, potency, and purity of the final biological product. Additionally, appropriate packaging must be selected and tested and stability studies must be conducted to demonstrate that the biological product candidate does not undergo unacceptable deterioration over its shelf life.

U.S. Review and Approval Processes

In order to obtain approval to market a biological product in the United States, a BLA must be submitted to the FDA that provides data establishing to the FDA's satisfaction the safety, purity and potency of the investigational biological product for the proposed indication. The application includes all data available from nonclinical studies and clinical trials, including negative or ambiguous results as well as positive findings, together with detailed information relating to the product's manufacture and composition, and proposed labeling, among other things. The testing and approval processes require substantial time and effort and there can be no assurance that the FDA will accept the BLA for filing and, even if filed, that any approval will be granted on a timely basis, if at all.

Under the Prescription Drug User Fee Act, or PDUFA, as amended, each BLA must be accompanied by a user fee. The FDA adjusts the PDUFA user fees on an annual basis. According to the FDA's fee schedule, effective through September 30, 2013, the user fee for an application requiring clinical data, such as a BLA, is $1,958,800 for fiscal year 2013. PDUFA also imposes an annual product fee for biologics ($98,380 for fiscal year 2013), and an annual establishment fee ($526,500 for fiscal year 2013) on facilities used to manufacture prescription biologics. Fee waivers or reductions are available in certain circumstances, including a waiver of the application fee for the first application filed by a small business. Additionally, no user fees are assessed on BLAs for products designated as orphan drugs, unless the product also includes a non-orphan indication.

The FDA has 60 days from its receipt of a BLA to determine whether the application will be accepted for filing based on the agency's threshold determination that the application is sufficiently complete to permit substantive

review. The FDA may refuse to file any BLA that it deems incomplete or not properly reviewable at the time of submission and may request additional information. In this event, the BLA must be resubmitted with the additional information. The resubmitted application also is subject to review before the FDA accepts it for filing. After the BLA submission is accepted for filing, the FDA reviews the BLA to determine, among other things, whether the proposed product is safe and potent, or effective, for its intended use, and has an acceptable purity profile, and whether the product is being manufactured in accordance with GMPs to assure and preserve the product's identity, safety, strength, quality, potency, and purity, and biological product standards. The FDA may refer applications for novel biological products or biological 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 and, if so, under what conditions. The FDA is not bound by the recommendations of an advisory committee, but it considers such recommendations carefully when making decisions.

Before approving a BLA, the FDA will inspect the facilities at which the product is manufactured. The FDA will not approve the product unless it determines that the manufacturing processes and facilities are in compliance with GMP requirements and adequate to assure consistent production of the product within required specifications. For a human cellular or tissue product, the FDA also will not approve the product if the manufacturer is not in compliance with the GTPs. These are FDA regulations that govern the methods used in, and the facilities and controls used for, the manufacture of human cells, tissues, and cellular and tissue based products, or HCT/Ps, which are human cells or tissue intended for implantation, transplant, infusion, or transfer into a human recipient. The primary intent of the GTP requirements is to ensure that cell and tissue based products are manufactured in a manner designed to prevent the introduction, transmission and spread of communicable disease. FDA regulations also require tissue establishments to register and list their HCT/Ps with the FDA and, when applicable, to evaluate donors through screening and testing. Additionally, before approving a BLA, the FDA may inspect one or more clinical sites to assure that the clinical trials were conducted in compliance with IND study requirements and GCPs. To assure GMP, GTP and GCP compliance, an applicant must incur significant expenditure of time, money and effort. If the FDA determines the manufacturing process or manufacturing facilities are not acceptable, it typically will outline the deficiencies and often will require the facility to take corrective action and provide documentation evidencing the implementation of such corrective action. This may significantly delay further review of the application. If the FDA finds that a clinical site did not conduct the clinical trial in accordance with GCPs, the FDA may determine the data generated by the clinical site should be excluded from the primary efficacy analyses provided in the BLA, and request additional testing or data. Additionally, notwithstanding the submission of any requested additional information, the FDA ultimately may decide that the application does not satisfy the regulatory criteria for approval.

The FDA also has authority to require a Risk Evaluation Mitigation Strategy, or REMS, from manufacturers to ensure that the benefits of a biological product outweigh its risks. A sponsor may also voluntarily propose a REMS as part of the BLA submission. The need for a REMS is determined as part of the review of the BLA. Based on statutory standards, elements of a REMS may include "dear doctor letters," a medication guide, more elaborate targeted educational programs, and in some cases restrictions on distribution. These elements are negotiated as part of the BLA approval, and in some cases may delay the approval date. Once adopted, REMS are subject to periodic assessment and modification.

After the FDA completes its initial review of a BLA, it will communicate to the sponsor that the biological product will either be approved, or it will issue a complete response letter to communicate that the BLA will not be approved in its current form. The complete response letter usually describes all of the specific deficiencies in the BLA identified by the FDA. The deficiencies identified may be minor, for example, requiring labeling changes, or major, for example, requiring additional clinical trials. Additionally, the complete response letter may include recommended actions that the applicant might take to place the applicant in a condition for approval. If a complete response letter is issued, the applicant may either resubmit the BLA, addressing all of the deficiencies identified in the letter, or withdraw the application.

The FDA may not grant approval on a timely basis, or at all. We may encounter difficulties or unanticipated costs in our efforts to secure necessary governmental approvals, which could delay or preclude us from marketing our products. The testing and approval process for a biological product usually takes several years to complete.

One of the performance goals agreed to by the FDA under PDUFA is to review 90% of standard BLAs in 10 months and 90% of priority BLAs in six months, whereupon a review decision is to be made. The FDA does not always meet its PDUFA goal dates for standard and priority BLAs and its review goals are subject to change from time to time. The review process and the PDUFA goal data may be extended by three months if the FDA requests or the BLA applicant otherwise provides additional information or clarification regarding information already provided in the submission within the last three months before the PDUFA goal date.

Even if a product candidate receives regulatory approval, the approval may be limited to specific disease states, patient populations and dosages, or the indications for use may otherwise be limited, which could restrict the commercial value of the product. Further, the FDA may require that certain contraindications, warnings, or precautions be included in the product labeling. The FDA may impose restrictions and conditions on product distribution, prescribing, or dispensing in the form of a risk management plan, or otherwise limit the scope of any approval. In addition, the FDA may require Phase 4 post-marketing clinical trials, designed to further assess a biological product's safety and effectiveness, and testing and surveillance programs to monitor the safety of approved products that have been commercialized. Further, even after regulatory approval is obtained, later discovery of previously unknown problems with a product may result in the imposition of new restrictions on the product or even complete withdrawal of the product from the market. Delay in obtaining, or failure to obtain and maintain, regulatory approval for ProHema, or obtaining approval but for significantly limited use, would harm our business.

Expedited Development and Review Programs

The FDA has a Fast Track program that is intended to facilitate the development and expedite the review of new drugs and biological products that meet certain criteria. Specifically, new drugs and biological products are eligible for Fast Track designation if they are intended to treat a serious or life-threatening condition or disease and demonstrate the potential to address unmet medical needs for the condition. Fast Track designation applies to the combination of the product and the specific indication for which it is being studied. The sponsor of a new drug or biological may request the FDA to designate the drug or biologic as a Fast Track product at any time during the clinical development of the product. Unique to a Fast Track product, the FDA may consider for review sections of the marketing application on a rolling basis before the complete application is submitted, if the sponsor provides a schedule for the submission of the sections of the application, the FDA agrees to accept sections of the application and determines that the schedule is acceptable, and the sponsor pays any required user fees upon submission of the first section of the application.

Any product submitted to the FDA for marketing, including under a Fast Track program, may be eligible for other types of FDA programs intended to expedite development and review, such as priority review and accelerated approval. Any product is eligible for priority review if it has the potential to provide safe and effective therapy where no satisfactory alternative therapy exists or a significant improvement in the treatment, diagnosis or prevention of a disease compared to marketed products. The FDA will attempt to direct additional resources to the evaluation of an application for a new drug or biological product designated for priority review in an effort to facilitate the review. Additionally, a product may be eligible for accelerated approval. Drug or biological products studied for their safety and effectiveness in treating serious or life-threatening illnesses and that provide meaningful therapeutic benefit over existing treatments may receive accelerated approval, which means that they may be approved on the basis of adequate and well-controlled clinical trials establishing that the product has an effect on a surrogate endpoint that is reasonably likely to predict a clinical benefit, or on the basis of an effect on a clinical endpoint that can be measured earlier than irreversible morbidity or mortality, that is reasonably likely to predict an effect on irreversible morbidity or mortality or other clinical benefit, taking into account the severity, rarity or prevalence of the condition and the availability or lack of alternative treatments. As a condition of approval, the FDA may require that a sponsor of a drug or biological product receiving accelerated approval perform adequate and well-controlled post-marketing clinical trials. In addition, the FDA currently requires as a condition for accelerated approval pre-approval of promotional materials, which could adversely impact the timing of the commercial launch of the product. Fast Track designation, priority review and accelerated approval do not change the standards for approval but may expedite the development or approval process.

The Food and Drug Administration Safety and Innovation Act of 2012 also amended the FDCA to require FDA to expedite the development and review of a breakthrough therapy. A drug or biological product can be designated as a breakthrough therapy if it is intended to treat a serious or life-threatening disease or condition and preliminary clinical evidence indicates that it may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints. A sponsor may request that a drug or biological product be designated as a breakthrough therapy at any time during the clinical development of the product. If so designated, FDA shall act to expedite the development and review of the product's marketing application, including by meeting with the sponsor throughout the product's development, providing timely advice to the sponsor to ensure that the development program to gather nonclinical and clinical data is as efficient as practicable, involving senior managers and experienced review staff in a cross-disciplinary review, assigning a cross-disciplinary project lead for the FDA review team to facilitate an efficient review of the development program and to serve as a scientific liaison between the review team and the sponsor, and taking steps to ensure that the design of the clinical trials is as efficient as practicable.

U.S. Patent Term Restoration and Marketing Exclusivity

Depending upon the timing, duration, and specifics of the FDA approval of the use of our product candidates, some of our U.S. patents may be eligible for limited patent term extension under the Drug Price Competition and Patent Term Restoration Act of 1984, commonly referred to as the Hatch-Waxman Amendments. Patent term restoration can compensate for time lost during product development and the regulatory review process by returning up to five years of patent life for a patent that covers a new product or its use. However, patent term restoration cannot extend the remaining term of a patent beyond a total of 14 years from the product's approval date. The period of patent term restoration is generally one-half the time between the effective date of an IND (falling after issuance of the patent) and the submission date of a BLA, plus the time between the submission date of the BLA and the approval of that application, provided the sponsor acted with diligence. Only one patent applicable to an approved biological product is eligible for the extension and the application for the extension must be submitted prior to the expiration of the patent. The application for patent term extension is subject to approval by the U.S. Patent and Trademark Office, or USPTO, in consultation with the FDA.

A patent term extension is only available when the FDA approves a biological product for the first time. We believe ProHema and the manner in which it modulates HSCs have not been previously approved by the FDA. However, we cannot be certain that the USPTO and the FDA will agree with our analysis or will grant a patent term extension.

A biological product can obtain pediatric market exclusivity in the United States. Pediatric exclusivity, if granted, adds six months to existing exclusivity periods and patent terms. This six-month exclusivity, which runs from the end of other exclusivity protection or patent term, may be granted based on the voluntary completion of a pediatric study in accordance with an FDA-issued "Written Request" for such a study.

An abbreviated approval pathway for biological products shown to be similar to, or interchangeable with, an FDA-licensed reference biological product was created by the Biologics Price Competition and Innovation Act of 2009, which was part of the Patient Protection and Affordable Care Act, or PPACA, signed into law on March 23, 2010. This amendment to the PHS Act attempts to minimize duplicative testing. Biosimilarity, which requires that there be no clinically meaningful differences between the biological product and the reference product in terms of safety, purity, and potency, can be shown through analytical studies, animal studies, and a clinical trial or trials. Interchangeability requires that a biological product is biosimilar to the reference biological product and the product must demonstrate that it can be expected to produce the same clinical results as the reference product and, for products administered multiple times, the product and the reference product may be switched after one has been previously administered without increasing safety risks or risks of diminished efficacy relative to exclusive use of the reference biological product. However, complexities associated with the larger, and often more complex, structure of biological products, as well as the process by which such products are manufactured, pose significant hurdles to implementation that are still being worked out by the FDA.

A reference biological product is granted twelve years of exclusivity from the time of first licensure of the reference product. On April 10, 2013, President Obama released his proposed budget for fiscal year 2014 and

proposed to cut this twelve year period of exclusivity down to seven years. He also proposed to prohibit additional periods of exclusivity for brand biological products due to minor changes in product formulation, a practice often referred to as "evergreening." The first biological product submitted under the abbreviated approval pathway that is determined to be interchangeable with the reference product has exclusivity against other biologics submitting under the abbreviated approval pathway for the lesser of (i) one year after the first commercial marketing, (ii) 18 months after approval if there is no legal challenge, (iii) 18 months after the resolution in the applicant's favor of a lawsuit challenging the biologic's patents if an application has been submitted, or (iv) 42 months after the application has been approved if a lawsuit is ongoing within the 42-month period.

FDA Post-Approval Requirements

Maintaining substantial compliance with applicable federal, state, local, and foreign statutes and regulations requires the expenditure of substantial time and financial resources. Rigorous and extensive FDA regulation of biological products continues after approval, particularly with respect to GMP. We will rely, and expect to continue to rely, on third parties for the production of clinical and commercial quantities of any products that we may commercialize. Manufacturers of our products are required to comply with applicable requirements in the GMP regulations, including quality control and quality assurance and maintenance of records and documentation. We cannot be certain that we or our present or future suppliers will be able to comply with the GMP and other FDA regulatory requirements. Other post-approval requirements applicable to biological products include reporting of GMP deviations that may affect the identity, potency, purity and overall safety of a distributed product, record-keeping requirements, reporting of adverse effects, reporting updated safety and efficacy information, and complying with electronic record and signature requirements. After a BLA is approved, the product also may be subject to official lot release. As part of the manufacturing process, the manufacturer is required to perform certain tests on each lot of the product before it is released for distribution. If the product is subject to official release by the FDA, the manufacturer submits samples of each lot of product to the FDA together with a release protocol showing a summary of the history of manufacture of the lot and the results of all of the manufacturer's tests performed on the lot. The FDA also may perform certain confirmatory tests on lots of some products, such as viral vaccines, before releasing the lots for distribution by the manufacturer. In addition, the FDA conducts laboratory research related to the regulatory standards on the safety, purity, potency, and effectiveness of biological products.

Discovery of previously unknown problems or the failure to comply with the applicable regulatory requirements, by us or our suppliers, may result in restrictions on the marketing of a product or withdrawal of the product from the market as well as possible civil or criminal sanctions and adverse publicity. FDA sanctions could include refusal to approve pending applications, suspension or revocation of an approval, clinical hold, warning or untitled letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, fines, refusals of government contracts, mandated corrective advertising or communications with doctors, debarment, restitution, disgorgement of profits, or civil or criminal penalties. Any agency or judicial enforcement action could have a material adverse effect on us.

Biological product manufacturers and other entities involved in the manufacture and distribution of approved biological products are required to register their facilities with the FDA and certain state agencies, and are subject to periodic unannounced inspections by the FDA and certain state agencies for compliance with GMPs and other laws. In addition, changes to the manufacturing process or facility generally require prior FDA approval before being implemented and other types of changes to the approved product, such as adding new indications and additional labeling claims, are also subject to further FDA review and approval.

Labeling, Marketing and Promotion

The FDA closely regulates the labeling, marketing and promotion of biological products, including direct-to-consumer advertising, promotional activities involving the internet, and industry-sponsored scientific and educational activities. While doctors are free to prescribe any product approved by the FDA for any use, a company can only make claims relating to safety and efficacy of a biological product that are consistent with FDA approval, and the company is allowed to market a biological product only for the particular use and treatment approved by the FDA. In addition, any

claims we make for our products in advertising or promotion must be appropriately balanced with important safety and risk information and otherwise be adequately substantiated. Failure to comply with these requirements can result in adverse publicity, warning letters, corrective advertising, injunctions, potential civil and criminal penalties and exclusion from government healthcare programs.

Orphan Designation

ProHema has received orphan designation in the United States for the enhancement of stem cell engraftment through *ex vivo* modulation of human allogeneic HSCs and in the European Union for the treatment of acute myelogenous lymphoma through the *ex* vivo modulation of allogeneic umbilical cord blood cells. Under the Orphan Drug Act, the FDA may grant orphan designation to biological products intended to treat a rare disease or condition, which is generally a disease or condition that affects fewer than 200,000 individuals in the United States, or more than 200,000 individuals in the United States and for which there is no reasonable expectation that the cost of developing and making a biological product in the United States for this type of disease or condition will be recovered from sales of the product. Orphan designation must be requested before submitting a BLA. After the FDA grants orphan designation, the identity of the applicant, as well as the name of the therapeutic agent and its designated orphan use, are disclosed publicly by the FDA. Orphan designation does not convey any advantage in, or shorten the duration of, the regulatory review and approval process.

If a biological product that receives orphan designation is the first such product approved by FDA for the orphan indication, it receives orphan product exclusivity, which for seven years prohibits the FDA from approving another application to market the same product for the same indication. Orphan product exclusivity will not bar approval of another product under certain circumstances, including if the new product is shown to be clinically superior to the approved product on the basis of greater efficacy or safety, or if the company with the orphan product exclusivity is unable to meet market demand. More than one product may also be approved by the FDA for the same orphan indication or disease as long as the products are different. As a result, even though ProHema has received orphan designation, the FDA can still approve different products for use in treating the same indication or disease covered by ProHema, which could create a more competitive market for us. Additionally, competitors may obtain approval for the same product but for a different indication for which the orphan product has exclusivity. Orphan product exclusivity also could block the approval of one of our products for seven years if a competitor obtains approval of the same biological product as defined by the FDA first or if our product candidate is determined to be contained within the competitor's product for the same indication or disease. If a biological product designated as an orphan product receives marketing approval for an indication broader than what is designated, it may not be entitled to orphan product exclusivity. Orphan drug status in the European Union has similar, but not identical, benefits.

Pediatric Research Equity Act

Under the Pediatric Research Equity Act, or PREA, a BLA or BLA supplement must contain data to assess the safety and effectiveness of the biological product 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 intent of PREA is to compel sponsors whose products have pediatric applicability to study those products in pediatric populations, rather than ignoring pediatric indications for adult indications that could be more economically desirable. The FDA may grant deferrals for submission of data or full or partial waivers. By its terms, PREA does not apply to any biological product for an indication for which orphan designation has been granted, unless the FDA issues regulations saying otherwise. Because the FDA has not issued any such regulations, submission of a pediatric assessment is not required for an application to market a product for an orphan-designated indication.

Anti-Kickback and False Claims Laws

In the United States, the research, manufacturing, distribution, sale and promotion of biological products are potentially subject to regulation by various federal, state and local authorities in addition to the FDA, including the Centers for Medicare & Medicaid Services, other divisions of the U.S. Department of Health and Human

Services (e.g., the Office of Inspector General), the U.S. Department of Justice, state Attorneys General, and other federal, state and local government agencies. For example, sales, marketing and scientific/educational grant programs must comply with the Anti-Kickback Statute, as amended, the federal False Claims Act, as amended, (the False Claims Act) the privacy regulations promulgated under the Health Insurance Portability and Accountability Act, or HIPAA, and similar state laws. Pricing and rebate programs must comply with the Medicaid Drug Rebate Program requirements of the Omnibus Budget Reconciliation Act of 1990, as amended, and the Veterans Health Care Act of 1992, as amended. If products are made available to authorized users of the Federal Supply Schedule of the General Services Administration, additional laws and requirements apply. All of these activities are also potentially subject to federal and state consumer protection and unfair competition laws.

As noted above, in the United States, we are subject to complex laws and regulations pertaining to healthcare "fraud and abuse," including, but not limited to, the Anti-Kickback Statute, the False Claims Act, and other state and federal laws and regulations. The Anti-Kickback Statute makes it illegal for any person, including a biological product manufacturer (or a party acting on its behalf) to knowingly and willfully solicit, receive, offer, or pay any remuneration that is intended to induce the referral of business, including the purchase or order of an item for which payment may be made under a federal healthcare program, such as Medicare or Medicaid. Violations of this law are punishable by up to five years in prison, criminal fines, administrative civil money penalties, and exclusion from participation in federal healthcare programs. In addition, many states have adopted laws similar to the Anti-Kickback Statute. Some of these state prohibitions apply to the referral of patients for healthcare services reimbursed by any insurer, not just federal healthcare programs such as Medicare and Medicaid. Due to the breadth of these federal and state anti-kickback laws and the potential for additional legal or regulatory change in this area, it is possible that our future sales and marketing practices or our future relationships with physicians might be challenged under anti-kickback laws, which could harm us. Because we intend to commercialize products that could be reimbursed under a federal healthcare program and other governmental healthcare programs, we plan to develop a comprehensive compliance program that establishes internal controls to facilitate adherence to the rules and program requirements to which we will or may become subject.

The False Claims Act prohibits anyone from, among other things, knowingly presenting, or causing to be presented, for payment to federal programs (including Medicare and Medicaid) claims for items or services, including biological products, that are false or fraudulent. Although we likely would not submit claims directly to payers, manufacturers can be held liable under these laws if they are deemed to "cause" the submission of false or fraudulent claims by, for example, providing inaccurate billing or coding information to customers or promoting a product off-label. In addition, our future activities relating to the reporting of wholesaler or estimated retail prices for our products, the reporting of prices used to calculate Medicaid rebate information and other information affecting federal, state, and third-party coverage and reimbursement for our products, and the sale and marketing of our products, are subject to scrutiny under this law. For example, pharmaceutical companies have been prosecuted under the False Claims Act in connection with their off-label promotion of drugs. Penalties for a False Claims Act violation include three times the actual damages sustained by the government, plus mandatory civil penalties of between $5,500 and $11,000 for each separate false claim, the potential for exclusion from participation in federal healthcare programs, and, although the federal False Claims Act is a civil statute, conduct that results in a False Claims Act violation may also implicate various federal criminal statutes. If the government were to allege that we were, or convict us of, violating these false claims laws, we could be subject to a substantial fine and may suffer a decline in our stock price. In addition, private individuals have the ability to bring actions under the False Claims Act and certain states have enacted laws modeled after the False Claims Act.

There are also an increasing number of state laws that require manufacturers to make reports to states on pricing and marketing information. Many of these laws contain ambiguities as to what is required to comply with the laws. In addition, as discussed below, beginning in August 2013, a similar federal requirement will require manufacturers to track and report to the federal government certain payments made to physicians and teaching hospitals made in the previous calendar year. These laws may affect our sales, marketing, and other promotional activities by imposing administrative and compliance burdens on us. In addition, given the lack of clarity with respect to these laws and their implementation, our reporting actions could be subject to the penalty provisions of the pertinent state, and soon federal, authorities.

Other Regulations

We are also subject to numerous federal, state and local laws relating to such matters as safe working conditions, manufacturing practices, environmental protection, fire hazard control, and disposal of hazardous or potentially hazardous substances. We may incur significant costs to comply with such laws and regulations now or in the future.

Facilities

We occupy approximately 23,684 square feet of office and laboratory space in San Diego, California under a lease that expires in 2014. We believe that our facilities are adequate for our current needs.

Employees

As of May 31, 2013, we employed 33 full-time employees, including 17 in research and development, ten in clinical development and six in general and administrative. We have never had a work stoppage, and none of our employees is represented by a labor organization or under any collective bargaining arrangements. We consider our employee relations to be good.

Legal Proceedings

We are not a party to any material legal proceedings at this time. From time to time, we may be subject to various legal proceedings and claims that arise in the ordinary course of our business activities. Although the results of litigation and claims cannot be predicted with certainty, as of the date of this prospectus, we do not believe we are party to any claim or litigation the outcome of which, if determined adversely to us, would individually or in the aggregate be reasonably expected to have a material adverse effect on our business. Regardless of the outcome, litigation can have an adverse impact on us because of defense and settlement costs, diversion of management resources and other factors.

MANAGEMENT

Executive Officers and Directors

The following table sets forth information regarding our executive officers and directors, including their ages as of May 31, 2013:

Name	Age	Position
Executive Officers:		
Christian Weyer, M.D., M.A.S.	44	President, Chief Executive Officer and Director
J. Scott Wolchko	42	Chief Financial Officer and Chief Operating Officer
Pratik S. Multani, M.D., M.S.	46	Chief Medical Officer
Daniel D. Shoemaker, Ph.D.	45	Chief Technology Officer
Peter Flynn, Ph.D.	39	Senior Vice President, Early Program Development
Non-Management Directors:		
William H. Rastetter, Ph.D.	65	Chairman of the Board
John D. Mendlein, Ph.D., J.D.(1)	53	Vice Chairman of the Board
Mark J. Enyedy	49	Director
Amir Nashat, Sc.D.(1)	40	Director
Robert T. Nelsen(1)(2)	50	Director
Bryan E. Roberts, Ph.D.(2).	46	Director
Carl Weissman(2)	50	Director

(1) Member of the Audit Committee.

(2) Member of the Compensation Committee.

Christian Weyer, M.D., M.A.S. has served as our President and Chief Executive Officer and a director since October 2012. Dr. Weyer joined us after a 12-year tenure with Amylin Pharmaceuticals, Inc., a biopharmaceutical company, where he most recently served as Senior Vice President of Research and Development until the completion of Amylin's acquisition by Bristol-Myers Squibb in August 2012. During his tenure with Amylin, Dr. Weyer also served as Vice President of Medical Development and Vice President of Corporate Development. Prior to joining Amylin, he spent three years, from 1997 to 2000, with the National Institutes of Health, NIDDK, in Phoenix, Arizona, where he conducted clinical research on the pathogenesis of obesity and type 2 diabetes. Dr. Weyer holds an M.D. from the University of Düsseldorf, Germany, and a postdoctoral master's degree in clinical research from the University of California, San Diego. We believe Dr. Weyer's extensive leadership, executive, managerial, business and pharmaceutical company experience qualifies him to serve as a member of our board of directors. In addition, Dr. Weyer's day-to-day management and intimate knowledge of our business and operations provide our board with an in-depth understanding of the Company.

J. Scott Wolchko has served as our Chief Financial Officer since the commencement of our operations in September 2007 and as our Chief Operating Officer since February 2013. Mr. Wolchko began his career in 1994 as an investment banker with Morgan Stanley & Co., serving in the firm's New York City and Menlo Park, California offices. As a member of the firm's Investment Banking Health Care Group, he assisted emerging growth companies in the life sciences sector complete capital-raising and M&A transactions. Prior to joining us, from July 2001 to September 2007, Mr. Wolchko served as the Chief Financial Officer of Bocada, Inc., an enterprise software company that specializes in data protection management. Mr. Wolchko holds an M.S. in biochemical engineering from the University of Virginia, and a B.S. in biomedical engineering from the University of Vermont.

Pratik S. Multani, M.D., M.S. has served as our Chief Medical Officer since May 2013 and was previously our Senior Vice President of Clinical Development from May 2011 to May 2013, and Vice President of Clinical Development from April 2009 to May 2011. Prior to that, Dr. Multani was Vice President of Clinical Development

at Kalypsys, Inc., a pharmaceutical company, from August 2007 to March 2009, where he advanced the development of multiple compounds in the therapeutic areas of pain and inflammation and metabolic diseases. From 2005 to 2007, he served as Senior Vice President of Clinical Development and then Chief Medical Officer at Kanisa Pharmaceuticals, an oncology-focused pharmaceutical company. From 1999 to 2004, advancing from Associate Director of Oncology and Hematology to Senior Director of Medical Research at Biogen-Idec. Dr. Multani holds an M.S. in epidemiology from Harvard School of Public Health, an M.D. from Harvard Medical School and a B.S. in chemistry and biology from Yale University. He completed his Internal Medicine residency at the Massachusetts General Hospital followed by a medical oncology fellowship at the Dana Farber/Partners joint program, after which he was a member of the transplant unit at Massachusetts General Hospital.

Daniel D. Shoemaker, Ph.D. has served as our Chief Technology Officer since February 2009 and leads our drug discovery efforts. From 2003 to 2009, Dr. Shoemaker was previously Chief Scientific Officer of ICxBiosystems, a biotechnology firm that develops advanced detection technologies for use in biodefense, cancer and prenatal diagnostics. From 2003 to 2005, he was Chief Scientific Officer of GHC Technologies, a biotechnology company. From 1998 to 2003, Dr. Shoemaker held several positions at Merck Research Laboratories, including Director of Target Discovery, Senior Director at Rosetta Inpharmatics and research fellow in the Department of Molecular Neurosciences, where his main focus was on target identification and biomarker discovery. Dr. Shoemaker received his Ph.D. in biochemistry from Stanford University and his B.S. in biochemistry from the University of California, Santa Barbara.

Peter Flynn, Ph.D. has served as our Senior Vice President, Early Program Development since February 2013 and was previously our Vice President of Biologic Therapeutics and iPSC Technology from May 2011 to February 2013. From May 2009 to May 2011, he served as our Senior Director of Protein Discovery. Prior to joining us, from January 2007 to May 2009, he was Vice President of Research for Ren Pharmaceuticals, a renal and cario-renal therapeutics company. Prior to Ren, from March 2001 to January 2007, Dr. Flynn was Director of Biochemistry Research at KaloBios Pharmaceuticals, an antibody therapeutics company. Prior to the formation of KaloBios, Dr. Flynn was a researcher at UCSF Comprehensive Cancer Center. He holds a Ph.D. from the ICRF London (Cancer Research UK) and a B.Sc. in molecular biology from University College London.

William H. Rastetter, Ph.D. has served as Chairman of the Board and a director since November 2011. From February 2012 to October 2012, he also served as our interim Chief Executive Officer. He is a Co-Founder of Receptos, Inc., a biopharmaceutical company, where he has been a director and Chairman of the Board since May 2009 and was Acting Chief Executive Officer from May 2009 to November 2010. Dr. Rastetter served as a Partner at the venture capital firm of Venrock from 2006 to February 2013. Prior to that, Dr. Rastetter was Executive Chairman of Biogen Idec, from the merger of the two companies (Biogen and Idec Pharmaceuticals) in 2003 through the end of 2005. He joined Idec Pharmaceuticals at its founding in 1986 and served as Chairman and Chief Executive Officer. Prior to Idec, he was Director of Corporate Ventures at Genentech, Inc. and also served in a scientific capacity at Genentech. Dr. Rastetter also serves as the Chairman of Illumina, Inc. and Neurocrine Biosciences, Inc. and as a director of Regulus Therapeutics, Inc. Dr. Rastetter held various faculty positions at the Massachusetts Institute of Technology and Harvard University and was an Alfred P. Sloan Fellow. Dr. Rastetter holds a Ph.D. and M.A. in chemistry from Harvard University and an S.B. in chemistry from the Massachusetts Institute of Technology. We believe Dr. Rastetter is qualified to serve on our board of directors due to his extensive experience in the biotechnology industry, his broad leadership experience with Idec Pharmaceuticals and on several boards of pharmaceutical companies, and his experience with financial matters.

John D. Mendlein, Ph.D., J.D. has served as our Vice Chairman of the Board since November 2011 and a director since April 2008. He also previously served as our Chief Executive Officer, as well as the founding Chairman of the Board and Chief Science Officer. Dr. Mendlein also serves as Executive Chairman and Chief Executive Officer of aTyr Pharma, Inc., a biopharmaceutical company, a position he has held since September 2011. He also holds board positions with Moderna Therapeutics and BIO (Biotechnology Industry Organization) including its emerging companies board. Dr. Mendlein previously served as the Chief Executive Officer of Adnexus Therapeutics, a biopharmaceutical company, from 2005 to 2008, which was purchased by Bristol-Myers Squibb (BMY) in 2008. Before that, he served as Chairman and Chief Executive Officer of Affinium Pharmaceuticals, Inc. from 2000 to 2005, and board member, General Counsel and Chief Knowledge Officer at

Aurora Bioscience Corporation from August 1996 to September 2001. Dr. Mendlein holds a Ph.D. in physiology and biophysics from the University of California, Los Angeles, a J.D. from the University of California, Hastings College of the Law, and a B.S. in biology from the University of Miami. We believe that Dr. Mendlein's extensive business and leadership experience in the biotechnology industry qualifies him to serve as a member of our board of directors.

Mark J. Enyedy has served as a director since July 2012. Mr. Enyedy is Chief Executive Officer and director of Proteostasis Therapeutics, Inc., a biopharmaceutical company, a position he has held since September 2011. Prior to Proteostasis, he served 15 years with Genzyme Corporation, a biotechnology company, most recently as President of the Transplant, Oncology and Multiple Sclerosis divisions. Before joining Genzyme, Mr. Enyedy was an associate in the business law department at Palmer & Dodge. Mr. Enyedy holds a J.D. from Harvard Law School and a B.S. in criminal justice from Northeastern University. We believe that Mr. Enyedy's extensive strategic, operational and business experience with life sciences companies qualifies him to serve as a member of our board of directors.

Amir Nashat, Sc.D. has served as a director since September 2007. He is also a Managing General Partner at Polaris Venture Partners. He joined Polaris in April 2002 and focuses on investments in healthcare, consumer products and energy. Dr. Nashat currently represents Polaris as a director of Receptos, Inc., as well as several private companies. Additionally, Dr. Nashat has served as a director of Adnexus Therapeutics (acquired by Bristol Myers Squibb) and other private companies. Dr. Nashat holds a Sc.D. in chemical engineering from the Massachusetts Institute of Technology with a minor in biology, and an M.S. and B.S. in materials science and mechanical engineering from the University of California, Berkeley. We believe that Dr. Nashat is qualified to serve on our board of directors due his extensive experience within the field of drug discovery and development, his broad leadership experience on various boards, and his financial expertise with life sciences companies.

Robert T. Nelsen has served as a member of our board of directors since September 2007. Mr. Nelsen was a co-founder of ARCH Venture Partners, a venture capital firm, and has served in various capacities for ARCH and affiliated entities since July 1986. He is currently a managing director of ARCH Venture Corporation. Mr. Nelsen is a director of Agios, Inc., Ikaria, Inc., Kythera Biopharmaceuticals, Inc., Sapphire Energy, Inc., Ensemble Therapeutics Corporation, NeurogesX, Inc., Syros Pharmaceuticals Inc., among others, and serves as chairman of the board of Hua Medicine. Mr. Nelsen also serves as a Trustee of the Fred Hutchinson Cancer Research Institute, the Institute for Systems Biology, and is a director of the National Venture Capital Association. Mr. Nelsen previously served on the boards of Illumina, Inc., Caliper Life Sciences, Inc., Adolor Corporation, Receptos, Inc., and entities affiliated with deCode Genetics, Inc., among others. Mr. Nelsen holds an M.B.A. from the University of Chicago and a B.S. with majors in biology and economics from the University of Puget Sound. We believe Mr. Nelsen is qualified to sit on our board of directors due to his extensive experience as an investor in, and director of, early stage biopharmaceutical and life sciences companies.

Bryan E. Roberts, Ph.D. has served as a director since November 2007. Dr. Roberts is a Partner at Venrock, a venture capital investment firm, which he joined in 1997. Dr. Roberts serves as Chair of the board of directors of Ironwood Pharmaceuticals, Inc., a biopharmaceutical company, a director of ZELTIQ Aesthetics, Inc., a medical technology company focused on developing and commercializing products utilizing its proprietary controlled-cooling technology platform, and as a director of several private companies. He has previously served on the boards of directors of athenahealth, Inc., XenoPort, Inc. and Sirna Therapeutics, Inc. From 1989 to 1992, Dr. Roberts worked in the corporate finance department of Kidder, Peabody & Co., a brokerage company. Dr. Roberts holds a Ph.D. in chemistry and chemical biology from Harvard University and a B.A. in chemistry from Dartmouth College. We believe Dr. Roberts is qualified to serve on our board of directors based on his extensive experience serving on the boards of public and private life science and biotechnology companies and his financial expertise with such companies.

Carl Weissman has served as a director since November 2009. Mr. Weissman was a Venture Partner of OVP Venture Partners from February 2007 to December 2012. Since May 2003, he has served as President and Chief Executive Officer of Accelerator Corporation, a joint investment vehicle backed by a syndicate of venture capital firms. His current and past directorships include several private companies, as well as NanoString

Technologies, Inc. Mr. Weissman holds a B.A. in economics from Carleton College. We believe Mr. Weissman is qualified to serve on our board of directors because of his extensive business and leadership experience with life science companies.

Our Scientific Founders

Our leadership position in the pharmacologic modulation of adult stem cells has its foundation in our longstanding relationship with our scientific founders, who are renowned pioneers in the field of developmental and stem cell biology:

Philip Beachy, Ph.D., Ernest and Amelia Gallo Professor at Stanford University School of Medicine, Department of Biochemistry, Institute for Stem Cell Biology and Regenerative Medicine, and Investigator of the Howard Hughes Medical Institute, or HHMI, studies the normal functions of secreted protein signals of the Hedgehog and Wnt pathways and the pathological roles of such signaling pathways in developmental disorders and cancer growth.

Sheng Ding, Ph.D., Senior Investigator, Gladstone Institute of Cardiovascular Disease, works in the field of developing and applying innovative chemical approaches to stem cell biology and regeneration, with a focus on discovering and characterizing novel small molecules that can control various cell fate and function, including stem cell maintenance, activation, differentiation and reprogramming in various developmental stages and tissues.

Rudolf Jaenisch, M.D., Founding Member of the Whitehead Institute, Professor of Biology at the Massachusetts Institute of Technology, and Member of the National Academy of the Sciences, is recognized as the first scientist to generate a transgenic mouse and one of the first scientists to reprogram fully mature adult cells and generate iPSCs and successfully demonstrate the application of iPSC technology to disease correction in rodent systems.

Randall Moon, Ph.D., William and Marilyn Connor Chair and Founding Director of the Institute for Stem Cell and Regenerative Medicine at University of Washington and HHMI Investigator, studies the Wnt signal transduction pathways with an emphasis on their normal roles in vertebrates, their mechanisms of action, their linkage to various disease processes, and the development of therapeutics targeting these pathways.

Michael Rudnicki, Ph.D., Director of the Regenerative Medicine Program and the Sprott Centre for Stem Cell Research at the Ottawa Hospital Research Institute and International HHMI Investigator, has made numerous discoveries in the understanding of tissue regeneration, including the pivotal role of Wnt7a in stimulating muscle stem cell growth and Pax7 as a transcription factor required for the specification of satellite cells.

David Scadden, M.D., Gerald and Darlene Jordan Professor at Harvard Medical School, Co-director of Harvard Stem Cell Institute, and Director of Massachusetts General Hospital Center for Regenerative Medicine, is a practicing hematologist and oncologist and is focused on translating stem cell science to improve the lives of people with chronic disease.

Leonard Zon, M.D., Grousbeck Professor of Pediatric Medicine at Harvard Medical School, Director of the Stem Cell Program at Children’s Hospital Boston, and HHMI Investigator, is internationally recognized for his research in the emerging fields of stem cell biology and cancer genetics.

Composition of Our Board of Directors

Our board of directors currently consists of eight members, all of whom were elected pursuant to the board composition provisions of a voting agreement, which will terminate immediately prior to the completion of this offering. Upon the termination of these provisions, there will be no further contractual obligations regarding the election of our directors. Our nominating and corporate governance committee and board of directors may therefore consider a broad range of factors relating to the qualifications and background of director nominees, which may include diversity and is not limited to race, gender or national origin. We have no formal policy regarding board diversity. Our nominating and corporate governance committee’s and board of directors’ priority in selecting board

members is identification of persons who will further the interests of our stockholders through his or her established record of professional accomplishment, the ability to contribute positively to the collaborative culture among board members, knowledge of our business, understanding of the competitive landscape and professional and personal experiences and expertise relevant to our business strategy. Our directors hold office until their successors have been elected and qualified or until the earlier of their resignation or removal.

Director Independence. Our board of directors has determined that of the eight members of our board of directors are independent, as determined in accordance with the rules of The NASDAQ Stock Market and the SEC. In making such independence determination, the board of directors considered the relationships that each non-employee director has with us 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, and, where applicable, the transactions involving them described below under "Certain Relationships and Related Party Transactions". In considering the independence of the directors listed above, our board of directors considered the association of our directors with the holders of more than 5% of our common stock. Upon the completion of this offering, we expect that the composition and functioning of our board of directors and each of our committees will comply with all applicable requirements of The NASDAQ Stock Market and the rules and regulations of the SEC. There are no family relationships among any of our directors or executive officers.

Staggered Board. In accordance with the terms of our amended and restated certificate of incorporation and amended and restated bylaws that will become effective upon the completion of this offering, our board of directors will be divided into three classes, class I, class II and class III, with each class serving staggered three-year terms. 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 Class I directors will be ;
- Our Class II directors will be ; and
- Our Class III directors will be .

Our amended and restated certificate of incorporation and amended and restated bylaws that will become effective upon the completion of this offering provide that the authorized number of directors may be changed only by resolution of the board of directors. Any additional directorships resulting from an increase in the number of directors will be distributed among the three classes.

The division of our board of directors into three classes with staggered three-year terms may delay or prevent stockholder efforts to effect a change of our management or a change in control.

Leadership Structure of the Board

The positions of our chairman of the board and chief executive officer are presently separated at Fate. Separating these provisions allows our chief executive officer to focus on our day-to-day business, while allowing the chairman of the board to lead our board of directors in its fundamental role of providing advice to and independent oversight of management. Our board of directors recognizes the time, effort and energy that the chief executive officer must devote to his position in the current business environment, as well as the commitment required to serve as our chairman of the board, particularly as our board of directors' oversight responsibilities continue to grow. Our board of directors also believes that this structure ensures a greater role for the independent directors in the oversight of our company and active participation of the independent directors in setting agendas and establishing priorities and procedures for the work of our board of directors. Although our amended and restated bylaws that will be in effect upon the completion of this offering will not require our chairman of the board and chief executive officer positions to be separate, our board of directors believes that having separate positions is the appropriate leadership structure for us at this time and demonstrates our commitment to good corporate governance.

Board's Role in Risk Oversight

Risk is inherent with every business, and how well a business manages risk can ultimately determine its success. We face a number of risks, including risks relating to our financial condition, development and

commercialization activities, operations and intellectual property as more fully discussed under "Risk Factors" in this prospectus. Management is responsible for the day-to-day management of risks we face, while our board of directors, as a whole and through its committees, has responsibility for the oversight of risk management. In its risk oversight role, our board of directors has the responsibility to satisfy itself that the risk management processes designed and implemented by management are adequate and functioning as designed.

The role of our board of directors in overseeing the management of our risks is conducted primarily through committees of the board of directors, as disclosed in the descriptions of each of the committees below and in the charters of each of the committees. The full board of directors (or the appropriate board committee in the case of risks that are under the purview of a particular committee) discusses with management our major risk exposures, their potential impact on our company, and the steps we take to manage them. When a board committee is responsible for evaluating and overseeing the management of a particular risk or risks, the chairman of the relevant committee reports on the discussion to the full board of directors during the committee reports portion of the next board meeting. This enables our board of directors and its committees to coordinate the risk oversight role, particularly with respect to risk interrelationships.

Board Committees

Our board of directors has established an audit committee, a compensation committee and a nominating and governance committee. The composition of each committee set forth below will be effective upon the completion of this offering. Each committee will operate under a charter approved by our board. Following this offering, copies of each committee's charter will be posted on the Corporate Governance section of our website, at www.fatetherapeutics.com.

Audit Committee

, and currently serve on the audit committee, which is chaired by . Under the applicable rules of The NASDAQ Stock Market, we are permitted to phase in our compliance with the independent audit committee requirements under the following schedule: (1) one independent member at the time of listing; (2) a majority of independent members within 90 days of listing; and (3) all independent members within one year of listing. Our board of directors has determined that each of and is an independent director under the NASDAQ Marketplace Rules and Rule 10A-3 of the Exchange Act. We believe that the composition of our audit committee will comply with applicable rules of The NASDAQ Stock Market under the phase-in schedule described above. Our board of directors has designated as an "audit committee financial expert," as defined under the applicable rules of the SEC. The audit committee's responsibilities include:

- appointing, approving the compensation of, and assessing the independence of our independent registered public accounting firm;
- approving auditing and permissible non-audit services, and the terms of such services, to be provided by our independent registered public accounting firm;
- reviewing the internal audit plan with the independent registered public accounting firm and members of management responsible for preparing our financial statements;
- reviewing and discussing with management and the independent registered public accounting firm our annual and quarterly financial statements and related disclosures as well as critical accounting policies and practices used by us;
- reviewing the adequacy of our internal control over financial reporting;
- establishing policies and procedures for the receipt and retention of accounting-related complaints and concerns;
- recommending, based upon the audit committee's review and discussions with management and the independent registered public accounting firm, whether our audited financial statements shall be included in our Annual Report on Form 10-K;

- monitoring the integrity of our financial statements and our compliance with legal and regulatory requirements as they relate to our financial statements and accounting matters;
- preparing the audit committee report required by SEC rules to be included in our annual proxy statement;
- reviewing all related party transactions for potential conflict of interest situations and approving all such transactions; and
- reviewing quarterly earnings releases.

Compensation Committee

, and currently serve on the compensation committee, which is chaired by . Our board of directors has determined that each member of the compensation committee is "independent" as that term is defined in the applicable NASDAQ Stock Market rules. The compensation committee's responsibilities include:

- annually reviewing and approving corporate goals and objectives relevant to the compensation of our Chief Executive Officer;
- evaluating the performance of our Chief Executive Officer in light of such corporate goals and objectives and determining the compensation of our Chief Executive Officer;
- reviewing and approving the compensation of our other executive officers;
- reviewing and establishing our overall management compensation, philosophy and policy;
- overseeing and administering our compensation and similar plans;
- evaluating and assessing potential and current compensation advisors in accordance with the independence standards identified in the applicable NASDAQ Stock Market rules;
- retaining and approving the compensation of any compensation advisors;
- reviewing and approving our policies and procedures for the grant of equity-based awards;
- reviewing and making recommendations to the board of directors with respect to director compensation;
- preparing the compensation committee report required by SEC rules to be included in our annual proxy statement; and
- reviewing and discussing with management the compensation discussion and analysis to be included in our annual proxy statement or Annual Report on Form 10-K.

Nominating and Corporate Governance Committee

, and currently serve on the nominating and corporate governance committee, which is chaired by . Our board of directors has determined that each member of the nominating and corporate governance committee is "independent" as that term is defined in the applicable NASDAQ Stock Market rules. The nominating and corporate governance committee's responsibilities include:

- developing and recommending to the board of directors criteria for board and committee membership;
- establishing procedures for identifying and evaluating board of director candidates, including nominees recommended by stockholders;
- identifying individuals qualified to become members of the board of directors;
- recommending to the board of directors the persons to be nominated for election as directors and to each of the board's committees;

- developing and recommending to the board of directors a set of corporate governance guidelines; and
- overseeing the evaluation of the board of directors and management.

Our board of directors may establish other committees from time to time.

Compensation Committee Interlocks and Insider Participation

None of the members of our compensation committee has at any time during the prior three years been one of our officers or employees. None of our executive officers currently serves, or in the past fiscal year has served, as a member of the board of directors or compensation committee of any entity that has one or more executive officers serving on our board of directors or compensation committee.

Corporate Governance

Prior to the completion of this offering, we will adopt a written code of business conduct and ethics that applies to our directors, officers and employees, including our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions. Following the completion of this offering, a current copy of the code will be posted on the Corporate Governance section of our website, which is located at www.fatetherapeutics.com. If we make any substantive amendments to, or grant any waivers from, the code of business conduct and ethics for any officer or director, we will disclose the nature of such amendment or waiver on our website or in a current report on Form 8-K.

EXECUTIVE AND DIRECTOR COMPENSATION

Summary Compensation Table

The following table presents information regarding the total compensation earned by each individual who served as our chief executive officer at any time during the fiscal year ended December 31, 2012 and our two other most highly compensated executive officers who were serving as executive officers as of December 31, 2012. We refer to these officers as our named executive officers.

Name and Principal Position	Year	Salary ($)	Option Awards ($)[1]	Total ($)
Christian Weyer, M.D., M.A.S. [2]				
President and Chief Executive Officer	2012	$ 74,038	$ 677,486	$ 751,524
William H. Rastetter, Ph.D.				
Former Interim President and Chief Executive Officer [3]	2012	—	—	—
J. Scott Wolchko				
Chief Financial Officer and Chief Operating Officer	2012	$ 241,000	$ 96,092	$ 337,092
Pratik S. Multani, M.D., M.S.				
Chief Medical Officer	2012	$ 313,000	$ 102,334	$ 415,334

(1) In accordance with SEC rules, this column reflects the aggregate grant date fair value of the option awards granted during 2012 computed in accordance with Financial Accounting Standard Board ASC Topic 718 for stock-based compensation transactions, or ASC 718. Assumptions used in the calculation of these amounts are included in Note 5 to our consolidated financial statements included elsewhere in this prospectus. These amounts do not reflect the actual economic value that will be realized by the named executive officer upon the vesting of the stock options, the exercise of the stock options or the sale of the common stock underlying such stock options.

(2) Dr. Weyer joined our company in October 2012. Amount shown represents the compensation earned by Dr. Weyer during 2012 from and after his October 8, 2012 start date.

(3) Dr. Rastetter served as our interim President and Chief Executive Officer from February 2012 to October 2012. He did not receive any cash compensation for his service in this capacity. Dr. Rastetter purchased 769,346 shares of restricted common stock issued under our 2007 Equity Incentive Plan pursuant to his March 16, 2012 restricted stock purchase agreement. Such shares were purchased for $0.25 per share, which reflects the fair value of the common stock as of such date, for a total aggregate purchase price of $192,336.50.

Employment Arrangements with Our Named Executive Officers

Each of our named executive officers is party to a written employment agreement with us and is employed at-will, except that we did not enter into a written contract with Dr. Rastetter in connection with his service as our interim president and chief executive officer.

Christian Weyer, M.D., M.A.S.

Dr. Weyer entered into an at-will employment agreement with us on October 2, 2012 and commenced employment with us on October 8, 2012. His initial annual base salary is $350,000, subject to periodic review and adjustments at the discretion of the board of directors or the compensation committee. Beginning with the calendar year 2013, Dr. Weyer will be considered annually for a bonus target of up to 50% of his then-current base salary, as determined by the board of directors or the compensation committee. Any bonus awarded to Dr. Weyer for calendar year 2013 will also take into account his employment for the portion of calendar year 2012 during which he was employed with us. In connection with the commencement of his employment, we granted the following stock options to Dr. Weyer under our 2007 Plan:

- an option to purchase 1,417,631 shares of common stock (which we refer to as the “performance-based grant”) of which (i) 25% of the shares underlying such option (which we refer to as the “transaction-based

shares") vests over two years in equal monthly installments commencing on the earlier of (x) the date one month after achievement of the specified transaction milestone (as defined in the agreement) and (y) the date one month after the closing of a change of control (as defined in the agreement); and (ii) the remaining shares underlying such option are subject to performance-based vesting, where 25% of the shares underlying the option will vest based upon the per share common stock price received upon (x) the completion of this offering, or (y) a change of control (which we refer to as an "exit value") of at least $3.00, an additional 25% of the shares will vest upon the achievement of an exit value of at least $5.00 and an additional 25% of the shares will vest upon the achievement of an exit value of at least $7.00;

- an option to purchase 1,904,760 shares of common stock (which we refer to as the "standard time-based grant"), of which 25% of the shares underlying such option vests on October 8, 2013, and the remaining 75% vests in equal monthly installments thereafter through October 8, 2016, subject to Dr. Weyer's continued service to our company through each such vesting date; and
- an option to purchase 930,503 shares of common stock (which we refer to as the "early exercise time-based grant" and together with the "standard time-based grant," the "time-based grants"), which is subject to the same vesting schedule as the standard time-based grant and was subject to early exercise upon grant.

Payments Provided upon Termination for Good Reason or Without Cause

Dr. Weyer's employment is at will. In the event of termination for good reason or without cause, Dr. Weyer will be entitled to receive (i) the amount of his accrued but unpaid salary, earned but unpaid bonus, and any accrued but unused vacation as of the date of termination, (ii) reimbursement of any expenses properly incurred on behalf of the Company prior to any such termination and not yet reimbursed, (iii) continuation of his base salary for a period of twelve months after the effective date of termination, provided that such payments will be reduced dollar-for-dollar by any amounts received from employment or self-employment during the severance period if such termination follows a change in control, and (iv) continuation of group health plan benefits, with the cost of such benefits shared in the same relative proportion by the Company and Dr. Weyer until the earlier of (x) twelve months after termination and (y) the date Dr. Weyer becomes eligible for benefits through another employer or otherwise ineligible for COBRA, in the case of each of (iii) and (iv), subject to the execution and non-revocation of a release agreement, resignation from any and all positions and return of all Company property.

In addition, in the event Dr. Weyer is terminated without cause or for good reason following a change in control, (i) all of the then-unvested shares subject to the time-based grants shall immediately vest, and (ii) all of the then-unvested transaction-based shares shall immediately vest.

Payments Provided upon a Change of Control

In the event of a change of control, 50% of the then-unvested shares subject to Dr. Weyer's time-based grants shall vest immediately prior to such change in control. In addition, any portion of Dr. Weyer's unvested time-based grants or performance-based grant that is (i) unvested but eligible for continued or accelerated vesting and (ii) not assumed or substituted on substantially the same terms by the acquirer in connection with such change in control, will be converted into the right to receive the consideration payable to holders of common stock of the Company in connection with such change of control. Upon the closing of a change of control, Dr. Weyer's performance-based grant will terminate with respect to the number of performance-based option shares for which each applicable exit value is not achievable.

Under Dr. Weyer's employment agreement, the terms below are generally defined as follows:

"cause" means: (i) embezzlement, misappropriation of material assets or property of the Company; (ii) the conviction of, or plea of guilty or no contest to a felony or a crime involving moral turpitude, theft or securities laws violations; (iii) ongoing and repeated failure to perform the lawful duties and responsibilities of the position after receiving notice; or (iv) the employee's uncured breach of the employment agreement or related agreements with the Company;

"change of control" means (i) the liquidation, dissolution or winding up of the Company; (ii) the acquisition of the Company by means of any transaction or series of related transactions in which the Company's stockholders immediately prior to such transaction hold less than fifty percent (50%) of the voting power of the surviving or acquiring entity; or (iii) the sale, conveyance or other disposal of all or substantially all of the property or business of the Company; provided that a change of control will not include (x) a merger or consolidation with a wholly-owned subsidiary of the Company, (y) a merger effected exclusively for the purpose of changing the domicile of the Company or (z) any transaction or series of related transactions principally for bona fide equity financing purposes in which the Company is the surviving corporation; and

"good reason" means that the employee has complied with the appropriate notice procedures following the occurrence of any of the following: (i) the material diminution in the employee's responsibilities, authority and function; (ii) a material reduction in the employee's base salary that is not pursuant to a salary reduction program affecting substantially all senior level employees; or (iii) a change in the employee's workplace location of more than fifty (50) miles.

J. Scott Wolchko

Mr. Wolchko entered into an at-will employment agreement and commenced employment with us on September 17, 2007. The employment agreement was amended on November 11, 2008. His initial annual base salary was $160,000, subject to periodic review and adjustments based upon achievement of performance goals as determined by the board of directors. Pursuant to the terms of his employment agreement, Mr. Wolchko was issued 166,667 shares of restricted common stock on September 17, 2007. All of the shares subject to such restricted stock issuance were fully vested as of September 17, 2011.

Payments Provided upon a Change of Control

In the event that within twelve months of a change of control, Mr. Wolchko is terminated involuntarily without cause or for good reason, Mr. Wolchko shall be entitled to receive a cash severance payment equal to six months of his then-current salary and shall be reimbursed for six months of COBRA benefits, subject to the execution and non-revocation of a release agreement.

Under Mr. Wolchko's employment agreement, the terms below are generally defined as follows:

"cause" means (i) the occurrence of any of the following, as determined by the Board: (i) conviction of any felony or any crime involving fraud, dishonesty or moral turpitude under the laws of the United States or any state thereof; (ii) attempted fraud against the Company; (iii) material violation of any contract or agreement between the employee and the Company or any statutory duty owed to the Company; or (iv) repeated or habitual drug or alcohol use that materially and adversely interferes with the performance of the employee's services to the Company;

"change of control" means (i) the consummation of a merger or consolidation of the Company with any other corporation which results in the voting securities of the Company outstanding immediately prior thereto failing to represent more than fifty percent (50%) of the total voting power represented by the voting securities of the surviving entity after such transaction or (ii) the sale or disposition by the Company of all or substantially all of the Company's assets; and

"good reason" means that the employee has complied with the appropriate notice process following the occurrence of any of the following events: (i) a reduction by fifteen (15) or greater percent of the employee's then-current base salary (unless the base salary of all senior management is similarly reduced); (ii) a material reduction in the employee's kind or level of employee benefits (unless the benefits of all senior management are similarly reduced); or (iii) the employee's relocation to a facility or a location more than fifty (50) miles from the Company's headquarters.

Pratik S. Multani, M.D., M.S.

Dr. Multani entered into an at-will employment agreement with us on March 23, 2009 and commenced employment with us on April 20, 2009. His initial annual base salary was $285,000. Dr. Multani will be

considered annually for a bonus target of up to 30% of his then-current base salary, subject to achievement of reasonably attainable performance goals and milestones as agreed between Dr. Multani and our chief executive officer. No bonus was paid to Dr. Multani for the year ended December 31, 2012. In connection with the commencement of his employment, Dr. Multani was granted an option to purchase 168,750 shares of our common stock, 25% of which vested on April 20, 2010, and the remaining 75% of which fully vested as of April 20, 2013.

Payments Provided upon a Change of Control

In the event that within twelve months following a change of control (as defined in the 2007 Equity Incentive Plan), Dr. Multani is terminated involuntarily without cause or for good reason, Dr. Multani shall be entitled to receive a cash severance payment equal to six months of his then-current salary and reimbursement for six months of COBRA benefits, subject to the execution and non-revocation of a release agreement.

Under Dr. Multani's employment agreement, the terms below are generally defined as follows:

"cause" means the occurrence of any of the following, as determined by the Board: (i) conviction of any felony or any crime involving fraud, dishonesty or moral turpitude under the laws of the United States or any state thereof; (ii) attempted fraud against the Company; (iii) material violation of any contract or agreement between the employee and the Company or any statutory duty owed to the Company; or (iv) repeated or habitual drug or alcohol use that materially and adversely interferes with the performance of the employee's services to the Company;

"change of control" means (i) the liquidation, dissolution or winding up of the Company; (ii) the acquisition of the Company where the stockholders immediately prior to the transaction hold less than fifty percent (50%) of the voting power of the surviving or acquiring entity or (iii) the sale, conveyance or other disposal of substantially all the business or property of the Company; and

"good reason" means that the employee has complied with the appropriate notice process following the occurrence of any of the following events: (i) a reduction by fifteen (15) or greater percent of the employee's then-current base salary (unless the base salary of all senior management is similarly reduced); (ii) a material reduction by the Company or any successor thereof in the employee's kind or level of employee benefits (unless the benefits of all senior management are similarly reduced); or (iii) the employee's relocation to a facility or a location more than fifty (50) miles from the Company's headquarters.

Employee Confidentiality and Assignment Agreements

Each of our named executive officers has entered into a standard form agreement with respect to confidential information and assignment of inventions. Among other things, this agreement obligates each named executive officer to refrain from disclosing any of our proprietary information received during the course of employment and to assign to us any inventions conceived or developed during the course of employment.

Outstanding Equity Awards at Fiscal Year-End

The following table summarizes, for each of the named executive officers, the number of outstanding equity awards held by each of our named executive officers as of December 31, 2012.

	Option Awards				Stock Awards	
Name	Number of Securities underlying Unexercised Options (#) Exercisable	Number of Securities underlying Unexercised Options (#) Unexercisable	Option Exercise Price ($)	Option Expiration Date	Number of Shares that Have Not Vested (#)	Market Value of Shares that Have Not Vested ($)[1]
Christian Weyer, M.D., M.A.S.	—	1,417,631[2]	$ 0.21	10/9/2022	—	—
	—	1,904,760[3]	$ 0.21	10/9/2022	—	—
	930,503[3][4]	—	$ 0.21	10/9/2022	—	—
William H. Rastetter, Ph.D.	—	—	—	—	560,982[5]	$117,806
Pratik S. Multani, M.D., M.S.	168,750[4][6]	—	$ 0.08	5/11/2019	—	—
	112,278[7]	171,372[7]	$ 0.25	2/8/2022	—	—
	—	145,600[8]	$ 0.25	2/8/2022	—	—
	13,741[9]	118,176[9]	$ 0.21	7/23/2022	—	—
J. Scott Wolchko	88,953[7]	135,772[7]	$ 0.25	2/8/2022	—	—
	—	171,600[8]	$ 0.25	2/8/2022	—	—
	13,741[9]	118,176[9]	$ 0.21	7/23/2022	—	—

(1) There was no public market for our common stock as of December 31, 2012. The fair value of our common stock as of December 31, 2012 was $0.21 per share.

(2) 25% of the shares underlying this option will vest monthly over two years commencing on the earlier of a change of control or transaction milestone, subject to acceleration if Dr. Weyer is terminated without cause or resigns for good reason at any time after such change of control or transaction milestone. The remaining shares underlying this option are subject to performance-based vesting, where 25% of the shares underlying the option will vest upon the achievement of an exit value (as further defined in the applicable stock option agreement) of at least $3.00, an additional 25% of the shares will vest upon the achievement of an exit value of at least $5.00 and an additional 25% of the shares will vest upon the achievement of an exit value of at least $7.00. For more information on vesting of this grant, see "—Employment Arrangements with Our Named Executive Officers" above.

(3) 25% of the shares underlying this option will vest on October 8, 2013, with the remainder of the shares vesting in equal monthly installments over the following three years through October 8, 2016. The vesting of 50% of the then-unvested shares will accelerate upon a change of control, and the vesting of all remaining unvested shares will accelerate if Dr. Weyer is terminated without cause or resigns for good reason at any time after such change of control.

(4) This option was subject to early exercise upon grant.

(5) Under the terms of Dr. Rastetter's March 16, 2012 restricted common stock purchase agreement issued under our 2007 Equity Incentive Plan, the shares subject to our right of repurchase shall lapse in equal monthly installments through November 9, 2015, and will lapse in full upon a change of control. The shares listed are currently held by Dr. Rastetter's family trust.

(6) 25% of the shares underlying this option vested on April 20, 2010, with the remainder of the shares vesting in equal monthly installments over the following three years through April 20, 2013.

(7) 25% of the shares underlying this option vested on May 30, 2012, with the remainder of the shares vesting in equal monthly installments over the following three years through May 30, 2015. The vesting of 50% of the then-unvested shares will accelerate upon a change of control, and the vesting of all remaining unvested shares will accelerate if the option holder is terminated without cause or resigns for good reason at any time after such change of control.

(8) The shares underlying this option will vest monthly over two years commencing on the earlier of a change of control or performance milestone, as further set forth in the option holder's applicable stock option agreement, subject to acceleration upon a change of control if such change of control transaction occurs after the achievement of the applicable performance milestone.

(9) The shares underlying this option vest in equal monthly installments over four years from July 3, 2012 through July 3, 2016. The vesting of 50% of the then-unvested shares will accelerate upon a change of control, and the vesting of all remaining unvested shares will accelerate if the option holder is terminated without cause or resigns for good reason at any time after such change of control.

Director Compensation

The following table presents the total compensation for each person other than our chief executive officer who served as a member of our board of directors during 2012. Other than as set forth in the table and described more fully below, we did not pay any compensation, reimburse any expense of, make any equity awards or non-equity awards to, or pay any other compensation to any of the non-employee members of our board of directors in 2012.

In 2012, we did not maintain any standard fee arrangements for the non-employee members of our board of directors for their service as directors. We intend to adopt a formal director compensation policy for all of our non-employee directors prior to the completion of this offering.

Director	Option Award[1] ($)	All Other Compensation ($)	Total[2] ($)
William H. Rastetter, Ph.D.[3]	—	—	—
John D. Mendlein, Ph.D., J.D.[4]	$38,775	$ 75,289	$114,064
Mark J. Enyedy[5]	$31,860	—	$ 31,860
Amir Nashat, Sc.D.	—	—	—
Robert T. Nelsen	—	—	—
Bryan E. Roberts, Ph.D.	—	—	—
Carl Weissman	—	—	—

(1) In accordance with SEC rules, this column reflects the aggregate grant date fair value of the option awards granted during 2012 computed in accordance with ASC 718. Assumptions used in the calculation of these amounts are included in Note 5 to our consolidated financial statements included elsewhere in this prospectus. These amounts do not reflect the actual economic value that will be realized by the named executive officer upon the vesting of the stock options, the exercise of the stock options or the sale of the common stock underlying such stock options.

(2) We did not provide any cash, equity or other compensation to directors Amir Nashat, Robert T. Nelsen, Bryan E. Roberts or Carl Weissman during 2012 other than reimbursement of out-of-pocket expenses incurred in connection with attendance at board meetings.

(3) Dr. Rastetter held 769,346 shares of restricted common stock as of December 31, 2012, which shares were subsequently transferred to his family trust.

(4) Dr. Mendlein holds 910,700 shares of restricted common stock and an option to purchase 205,159 shares of common stock as of December 31, 2012. The amounts shown consist of base salary paid to Dr. Mendlein in connection with his previous employment agreement in the amount of $71,956 and fees paid in the amount of $3,333 in connection with his current consulting agreement not related to his service as a director. See "Certain Relationships and Related Party Transactions" for more information on these agreements.

(5) Mr. Enyedy holds an option to purchase 200,000 shares of common stock as of December 31, 2012.

Compensation Risk Assessment

We believe that although a portion of the compensation provided to our executive officers and other employees is performance-based, our executive compensation program does not encourage excessive or

unnecessary risk taking. This is primarily due to the fact that our compensation programs are designed to encourage our executive officers and other employees to remain focused on both short-term and long-term strategic goals, in particular in connection with our pay-for-performance compensation philosophy. As a result, we do not believe that our compensation programs are reasonably likely to have a material adverse effect on our company.

Equity Compensation Plans

2007 Equity Incentive Plan

Our 2007 Equity Incentive Plan was approved by our board of directors and our stockholders in September 2007 and was most recently amended in October 2012. We refer to our 2007 Equity Incentive Plan, as amended, as the 2007 Plan. We have reserved an aggregate of 14,349,974 shares of our common stock for the issuance of equity awards under the 2007 Plan. This number is subject to adjustment in the event of a stock split, stock dividend or other change in our capitalization. Effective upon the completion of this offering, our board of directors has determined not to grant any further awards under our 2007 Plan. The shares we issue under the 2007 Plan may be authorized but unissued shares or shares we reacquire. The shares of common stock underlying any equity awards that are forfeited, canceled, repurchased, expired or are otherwise terminated (other than by exercise) under the 2007 Plan are currently added back to the shares of common stock available for issuance under the 2007 Plan. Upon the completion of this offering, such shares will be added to the shares of common stock available for issuance under the 2013 Plan (as defined below).

The 2007 Plan permits us to make grants of incentive stock options to employees and grants of non-qualified stock options and restricted stock to employees, officers, directors and consultants. Our 2007 Plan is administered by our board of directors. Our board of directors has the authority to select the individuals to whom awards will be granted, to make any combination of awards to participants, to accelerate the exercisability or vesting of any award and to determine the specific terms and conditions of each award, subject to the provisions of the 2007 Plan.

The 2007 Plan permits the granting of (1) options to purchase common stock intended to qualify as incentive stock options under Section 422 of the Internal Revenue Code of 1986, as amended, or the Code, and (2) options that do not so qualify. The option exercise price of each option will be determined by our board of directors but may not be less than 100% of the fair market value of the common stock on the date of grant. The term of each option will be fixed by our board of directors and may not exceed ten years from the date of grant. All stock option awards that are granted pursuant to the 2007 Plan are covered by an option agreement.

The 2007 Plan permits the award of restricted shares of common stock to participants, subject to such terms, conditions and restrictions as our board of directors may determine. All restricted stock awards that are granted pursuant to the 2007 Plan are covered by a restricted stock purchase agreement.

The 2007 Plan provides that upon the occurrence of a “change of control,” as defined in the 2007 Plan, all outstanding stock options will terminate at the effective time or consummation of such change of control, unless the surviving entity agrees to assume such stock options or substitute similar stock awards for those outstanding under the 2007 Plan. If options under the 2007 Plan terminate, optionees will be provided an opportunity to exercise their vested options prior to the consummation of the change of control.

Our board of directors may amend, alter, suspend or terminate the 2007 Plan at any time, subject to stockholder approval where such approval is required by applicable law. Our board of directors may also amend, modify or terminate any outstanding award, provided that no amendment to an award may materially impair any of the rights of a participant under any awards previously granted without his or her written consent. No awards may be granted under the 2007 Plan after September 26, 2017.

2013 Stock Option and Incentive Plan

Our 2013 Stock Option and Incentive Plan was adopted by our board of directors and approved by our stockholders in 2013 and will become effective upon the completion of this offering. We refer to the

2013 Stock Option and Incentive Plan as the 2013 Plan. The 2013 Plan will replace the 2007 Plan. The 2013 Plan allows our compensation committee to make equity-based incentive awards to our officers, employees, directors and other key persons (including consultants).

We have initially reserved shares of our common stock for the issuance of awards under the 2013 Plan. This number is subject to adjustment in the event of a stock split, stock dividend or other change in our capitalization.

The shares issuable pursuant to awards granted under the 2013 Plan will be authorized but unissued shares or shares that we reacquire. The shares of common stock underlying any awards from the 2013 Plan and the 2007 Plan that are forfeited, cancelled, held back upon exercise or settlement of an award to satisfy the exercise price or tax withholding, reacquired by us prior to vesting, satisfied without any issuance of common stock, expire or are otherwise terminated (other than by exercise) under the 2013 Plan and the 2007 Plan will be added back to the shares of common stock available for issuance under the 2013 Plan.

Under the 2013 Plan, stock options and stock appreciation rights with respect to no more than shares may be granted to any one individual in any one calendar year. No more than shares may be issued in the form of incentive stock options in any one calendar year period.

The 2013 Plan will be administered by the compensation committee of our board of directors. The compensation committee has full power to select, from among the individuals eligible for awards, the individuals to whom awards will be granted, to make any combination of awards to participants, and to determine the specific terms and conditions of each award, subject to the provisions of the 2013 Plan. Persons eligible to participate in the 2013 Plan will be those full or part-time officers, employees, non-employee directors and other key persons (including consultants) as selected from time to time by our compensation committee in its discretion.

The 2013 Plan permits the granting of both options to purchase common stock intended to qualify as incentive stock options under Section 422 of the Code and options that do not so qualify. The exercise price of each stock option will be determined by our compensation committee but may not be less than 100% of the fair market value of our common stock on the date of grant or, in the case of an incentive stock option granted to a 10% owner, less than 110% of the fair market value of our common stock on the date of grant. The term of each stock option will be fixed by the compensation committee and may not exceed ten years from the date of grant. The compensation committee will determine at what time or times each option may be exercised.

The compensation committee may award stock appreciation rights subject to such conditions and restrictions as it may determine. Stock appreciation rights entitle the recipient to shares of common stock, or cash, equal to the value of the appreciation in our stock price over the exercise price. The exercise price may not be less than 100% of the fair market value of the common stock on the date of grant.

The compensation committee may award restricted stock or restricted stock units to participants subject to such conditions and restrictions as it may determine. These conditions and restrictions may include the achievement of certain performance goals or continued employment with us through a specified vesting period. The compensation committee may also grant shares of common stock that are free from any restrictions under the 2013 Plan. Unrestricted stock may be granted to participants in recognition of past services or for other valid consideration and may be issued in lieu of cash compensation due to such participant.

The compensation committee may grant performance share awards to participants which entitle the recipient to receive share awards of common stock upon the achievement of certain performance goals and such other conditions as the compensation committee shall determine.

The compensation committee may grant cash bonuses under the 2013 Plan to participants, subject to the achievement of certain performance goals.

The compensation committee may grant performance-based awards to participants in the form of restricted stock, restricted stock units, performance shares or cash-based awards upon the achievement of certain performance goals and such other conditions as the compensation committee shall determine. The compensation

committee may grant such performance-based awards under the 2013 Plan that are intended to qualify as "performance-based compensation" under Section 162(m) of the Code. Those awards would only vest or become payable upon the attainment of performance goals that are established by our compensation committee and related to one or more performance criteria. The performance criteria that could be used with respect to any such awards include: total shareholder return, earnings before interest, taxes, depreciation and amortization, net income (loss) (either before or after interest, taxes, depreciation or amortization), changes in the market price of our common stock, economic value-added, sales or revenue, development, clinical or regulatory milestones, acquisitions or strategic transactions, operating income (loss), cash flow (including, but not limited to, operating cash flow and free cash flow), return on capital, assets, equity, or investment, return on sales, gross or net profit levels, productivity, expense, margins, operating efficiency, customer satisfaction, working capital, earnings (loss) per share of stock, sales or market shares and number of customers, any of which may be measured either in absolute terms or as compared to any incremental increase or as compared to results of a peer group. From and after the time that we become subject to Section 162(m) of the Code, the maximum award that is intended to qualify as "performance-based compensation" under Section 162(m) of the Code that may be made to any one employee during any one calendar year period is shares with respect to a stock-based award and $ with respect to a cash-based award.

The 2013 Plan provides that upon the effectiveness of a "sale event," as defined in the 2013 Plan, in the event that all awards are not assumed or continued or substituted by the successor entity, all options and stock appreciation rights that are not exercisable immediately prior to the effective time of the sale event may become fully exercisable as of the effective time of the sale event, all other awards with time-based vesting, conditions or restrictions, shall become fully vested and nonforfeitable as of the effective time of the sale event and all awards with conditions and restrictions relating to the attainment of performance goals may become vested and nonforfeitable in the discretion of the compensation committee and all awards granted under the 2013 Plan shall terminate. In addition, in connection with a sale event, we may make or provide for a cash payment to participants holding options and stock appreciation rights equal to the difference between the per share cash consideration payable to stockholders in the sale event and the exercise price of the options or stock appreciation rights.

Our board of directors may amend or discontinue the 2013 Plan and our compensation committee may amend or cancel outstanding awards for purposes of satisfying changes in law or any other lawful purpose, but no such action may adversely affect rights under an award without the holder's consent. Certain amendments to the 2013 Plan require the approval of our stockholders.

No awards may be granted under the 2013 Plan after the date that is ten years from the date of stockholder approval of the 2013 Plan. No awards under the 2013 Plan have been made prior to the date of this prospectus.

401(k) Savings Plan and Other Benefits

We have established a 401(k) plan to allow our employees to save on a tax-favorable basis for their retirement. We do not match any contributions made by any employees, including our named executive officers, pursuant to the plan. We also pay, on behalf of our employees, the premiums for health, life and disability insurance.

Pension Benefits, Non-Qualified Defined Contribution Plans and Other Non-Qualified Defined Compensation Plans

We do not provide a pension plan or nonqualified defined contribution plans for any of our employees, and none of our named executive officers participated in a nonqualified deferred compensation plan during the fiscal year ended December 31, 2012.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

Other than the compensation agreements and other arrangements described under "Executive and Director Compensation" in this prospectus and the transactions described below, since January 1, 2010, there has not been and there is not currently proposed, any transaction or series of similar transactions to which we were, or will be, a party in which the amount involved exceeded, or will exceed, $120,000 and in which any director, executive officer, holder of five percent or more of any class of our capital stock or any member of the immediate family of, or entities affiliated with, any of the foregoing persons, had, or will have, a direct or indirect material interest.

Private Placements of Securities

Series C Preferred Stock Financing

In May 2012, we entered into a Series C convertible preferred stock purchase agreement, which was subsequently amended in July 2012. Pursuant to the purchase agreement, we issued an aggregate of 16,808,504 shares of our Series C convertible preferred stock at a price of $1.00 per share in three closings in May 2012, July 2012 and October 2012.

The following table summarizes the participation in our Series C preferred stock financing by holders of five percent or more of our voting securities:

Name of Investor	Shares of Series C Convertible Preferred Stock	Aggregate Purchase Price Paid
ARCH Venture Fund VI, L.P.(1)	3,709,314	$ 3,709,314
OVP Venture Partners VII, L.P.(2)	3,217,323	$ 3,217,323
OVP VII Entrepreneurs Fund, L.P.(2)	22,680	$ 22,680
Polaris Venture Partners Entrepreneurs' Fund V, L.P.(3)	69,760	$ 69,760
Polaris Venture Partners Founders' Fund V, L.P.(3)	24,518	$ 24,518
Polaris Venture Partners Special Founders' Fund V, L.P.(3)	35,793	$ 35,793
Polaris Venture Partners V, L.P.(3)	3,579,243	$ 3,579,243
Venrock Associates V, L.P.(4)	3,346,914	$ 3,346,914
Venrock Entrepreneurs Fund V, L.P.(4)	78,638	$ 78,638
Venrock Partners V, L.P.(4)	283,762	$ 283,762

(1) Robert T. Nelsen, a member of our board of directors, is affiliated with ARCH Venture Partners. See footnote 2 to the table in "Principal Stockholders" for more information.

(2) Carl Weissman, a member of our board of directors, is affiliated with OVP Venture Partners. See footnote 5 to the table in "Principal Stockholders" for more information.

(3) Amir Nashat, a member of our board of directors, is affiliated with Polaris Venture Partners. See footnote 3 to the table in "Principal Stockholders" for more information.

(4) Bryan E. Roberts, a member of our board of directors, is affiliated with Venrock. See footnote 4 to the table in "Principal Stockholders" for more information.

In connection with our Series C preferred stock financing, the stockholders listed above entered into an amended and restated investor rights agreement with us in May 2012, which was further amended and restated in June 2013. The terms of the amended and restated investor rights agreement are described in more detail under "Description of Capital Stock—Registration Rights."

Transactions with our Executive Officers, Directors and Beneficial Owners

Employment Agreements

We have entered into offer letters or employment related agreements with each of Christian Weyer, J. Scott Wolchko and Pratik S. Multani. For more information regarding these arrangements, see "Executive and Director Compensation—Employment Arrangements with Our Named Executive Officers."

Consulting Agreement

In December 2012, we entered into a consulting agreement with John D. Mendlein, the vice chairman of our board of directors, which terminated his prior employment agreement with us. Pursuant to the consulting agreement, Dr. Mendlein provides consulting services with respect to leadership and performance of strategic projects. As compensation for such services, Dr. Mendlein is entitled to an annual fee in the amount of $20,000, payable in periodic installments. In addition, we have agreed to enter into an agreement with Dr. Mendlein upon the completion of this offering regarding a change of control (as defined in his consulting agreement), at his request, whereby we will make a "gross-up" payment such that, in the event certain excise taxes and penalties are imposed upon Dr. Mendlein as a result of Section 280G or 4999 of the Code, his net after-tax payments and benefits will be equal to what he would have received absent such penalty tax. The consulting agreement does not have a specified term and is terminable by us or Dr. Mendlein at any time, with or without cause or notice.

Under the terms of Dr. Mendlein's prior employment agreement with us entered into in April 2008, Dr. Mendlein's served as the executive chairman of our board of directors and interim Chief Scientific Officer. His annual base salary for the first eighteen (18) months was $150,000, and $100,000 after October 1, 2009. Dr. Mendlein would be considered annually for a bonus target of up to 40% of his then-current base salary, subject to achievement of reasonably attainable performance targets as determined by our board of directors. No bonus was paid to Dr. Mendlein for the year ended December 31, 2012. If Dr. Mendlein's employment was terminated by him for good reason or by the Company without cause, he would have received (i) a cash severance amount equal to six months of his then-current salary and one-half of the full bonus, and (ii) six months of COBRA and other employee benefits, subject to the execution and non-revocation of a release agreement and written acknowledgement of continuing confidentiality obligations.

Contemporaneously with the consulting agreement, we entered into an amended and restated restricted stock purchase agreement with Dr. Mendlein to amend the repurchase restrictions applicable to the remaining 227,675 restricted shares issued pursuant to his April 2008 restricted stock purchase agreement. Under the amended agreement, our repurchase right will lapse upon the achievement of one or more performance milestones. In addition, our right to repurchase (x) 50% of Dr. Mendlein's then-restricted shares will lapse in full immediately prior to a change in control, and (y) 25% of Dr. Mendlein's then-restricted shares will lapse in full immediately prior to the completion of this offering.

Indemnification Agreements

We have entered into indemnification agreements with or have contractual obligations to provide indemnification to each of our directors and intend to enter into such agreements with certain of our executive officers. These agreements require us, among other things, to indemnify these individuals for certain expenses (including attorneys' fees), judgments, fines and settlement amounts reasonably incurred by such person in any action or proceeding, including any action by or in our right, on account of any services undertaken by such person on behalf of our company or that person's status as a member of our board of directors to the maximum extent allowed under Delaware law.

Restricted Stock and Stock Option Awards

For information regarding restricted stock and stock option awards granted to our named executive officers and directors, see "Executive and Director Compensation."

Registration Rights

We and certain holders of our capital stock have entered into an investor rights agreement pursuant to which these stockholders will have, among other things, registration rights under the Securities Act, with respect to common stock that they will hold following this offering. See "Description of Capital Stock—Registration Rights" for a further description of the terms of these agreements.

Policies for Approval of Related Party Transactions

Our board of directors reviews and approves transactions with directors, officers and holders of five percent or more of our voting securities and their affiliates, each a related party. Prior to this offering, the material facts as to the related party's relationship or interest in the transaction are disclosed to our board of directors prior to their consideration of such transaction, and the transaction is not considered approved by our board of directors unless a majority of the directors who are not interested in the transaction approve the transaction. Further, when stockholders are entitled to vote on a transaction with a related party, the material facts of the related party's relationship or interest in the transaction are disclosed to the stockholders, who must approve the transaction in good faith.

In connection with this offering, we intend to adopt a written related party transactions policy that such transactions must be approved by our audit committee or another independent body of our board of directors.

PRINCIPAL STOCKHOLDERS

The following table sets forth certain information known to us regarding beneficial ownership of our capital stock as of May 31, 2013, as adjusted to reflect the sale of common stock offered by us in this offering, for:

- each person, or group of affiliated persons, known by us to be the beneficial owner of more than five percent of our capital stock;
- our named executive officers;
- each of our other directors; and
- all executive officers and directors as a group.

Beneficial ownership is determined in accordance with the rules of the SEC and generally includes voting or investment power with respect to securities. Except as noted by footnote, and subject to community property laws where applicable, we believe based on the information provided to us that the persons and entities named in the table below have sole voting and investment power with respect to all common stock shown as beneficially owned by them.

The table lists applicable percentage ownership based on 58,439,352 shares of common stock outstanding as of May 31, 2013, assuming (i) the conversion of all of the outstanding convertible preferred stock into an aggregate of 46,992,394 shares of our common stock, (ii) the issuance of an aggregate of 2,625,000 shares of common stock pursuant to the redemption of exchangeable shares of Fate Canada as described in "Description of Capital Stock—Exchangeable Shares in Canadian Subsidiary," which will occur immediately prior to the completion of this offering, and (iii) no exercise of the underwriters' option to purchase additional shares. Options to purchase shares of common stock that are exercisable within 60 days of May 31, 2013 are deemed to be beneficially owned by the persons holding these options for the purpose of computing percentage ownership of that person, but are not treated as outstanding for the purpose of computing any other person's ownership percentage. Shares beneficially owned include restricted shares of common stock acquired upon any early exercise of stock options granted under our 2007 Plan.

Name and Address of Beneficial Owner[1]	Number of Shares Beneficially Owned before Offering	Number of Shares Beneficially Owned after Offering	Percentage of Shares Beneficially Owned before Offering	Percentage of Shares Beneficially Owned after Offering
Five Percent or Greater Stockholders:				
ARCH Venture Fund VI, L.P.[2]	9,824,157		16.8%	
Entities affiliated with Polaris Venture Partners[3]	9,824,156		16.8%	
Entities affiliated with Venrock[4]	9,824,156		16.8%	
Entities affiliated with OVP Venture Partners[5]	8,983,104		15.4%	
All 5% Stockholders as a group	38,455,573		65.8%	
Named Executive Officers and Directors:				
Christian Weyer, M.D., M.A.S.[6].	930,503		1.6%	
J. Scott Wolchko[7].	382,369		*	
Pratik S. Multani, M.D., M.S. [8]	355,367		*	
William H. Rastetter, Ph.D. [9].	769,346		1.3%	
John D. Mendlein, Ph.D. [10]	1,115,859		1.9%	
Mark J. Enyedy[11]	50,000		*	
Amir Nashat, Sc.D.[3].	9,824,156		16.8%	
Robert T. Nelsen[2]	9,824,157		16.8%	
Bryan E. Roberts, Ph.D.[4]	9,824,156		16.8%	
Carl Weissman[5]	—		—	
All executive officers and directors as a group (12 persons)[12]	33,702,389		55.7%	

* Represents beneficial ownership of less than one percent.

(1) Unless otherwise indicated, the address for each beneficial owner is c/o Fate Therapeutics, Inc., 3535 General Atomics Court, Suite 200, San Diego, CA 92121.

(2) The ownership of ARCH Venture Fund VI, L.P. ("ARCH Fund VI") consists of an aggregate of 9,824,157 shares of common stock issuable upon conversion of 4,390,706 shares of Series A convertible preferred stock, 1,724,137 shares of Series B convertible preferred stock (on an as-converted to common stock basis) and 3,709,314 shares Series C convertible preferred stock. The sole general partner of ARCH Fund VI is ARCH Venture Partners VI, L.P. ("ARCH Partners VI"), which may be deemed to beneficially own the shares held by ARCH Fund VI. The sole general partner of ARCH Partners VI is ARCH Venture Partners VI, LLC ("ARCH VI LLC"), which may be deemed to beneficially own the shares held by ARCH Fund VI. The managing directors of ARCH VI LLC are Keith Crandell, Clinton Bybee and Robert T. Nelsen, and they may be deemed to beneficially own the shares held by ARCH Fund VI. The mailing address of the beneficial owner is 8725 West Higgins Road, Suite 290, Chicago, IL 60631.

(3) Consists of: (i) an aggregate of 9,479,663 shares of common stock issuable upon conversion of 4,236,741 shares of Series A convertible preferred stock, 1,663,679 shares of Series B convertible preferred stock (on an as-converted to common stock basis) and 3,579,243 shares of Series C convertible preferred stock held by Polaris Venture Partners V, L.P. ("Polaris Ventures"), (ii) an aggregate of 184,756 shares of common stock issuable upon conversion of 82,572 shares of Series A convertible preferred stock, 32,424 shares of Series B convertible preferred stock (on an as-converted to common stock basis) and 69,760 shares of Series C convertible preferred stock held by Polaris Venture Partners Enterpreneurs' Fund V, L.P. ("Polaris Entrepreneurs' Fund"), (iii) an aggregate of 64,937 shares of common stock issuable upon conversion of 29,023 shares of Series A convertible preferred stock, 11,396 shares of Series B convertible preferred stock (on an as-converted to common stock basis) and 24,518 shares of Series C convertible preferred stock held by Polaris Venture Partners Founders' Fund V, L.P. ("Polaris Founders' Fund") and (iv) an aggregate of 94,800 shares of common stock issuable upon conversion of 42,370 shares of Series A convertible preferred stock, 16,637 shares of Series B convertible preferred stock (on an as-converted to common stock basis) and 35,793 shares of Series C convertible preferred stock held by Polaris Venture Partners Special Founders' Fund V, L.P. ("Polaris Special Founders' Fund"). Each of the funds has sole voting and investment power with respect to the shares held by such funds. The general partner of Polaris Ventures, Polaris Entrepreneurs' Fund, Polaris Founders' Fund and Polaris Special Founders' Fund is Polaris Venture Management Co. V, LLC ("Polaris Management"), and Polaris Management may be deemed to have sole voting and investment power over such shares. Director Amir Nashat is one of six members of Polaris Management. He has shared voting and investment power over such shares and may be deemed the indirect beneficial owner of such shares. The members of North Star Venture Management 2010 LLC are also members of Polaris Management, and as members of the general partner, they may be deemed to share voting and investment power over such shares. The mailing address of the beneficial owner is 1000 Winter Street, Suite 3350, Waltham, MA 02451.

(4) Consists of: (i) an aggregate of 8,864,337 shares of common stock issuable upon conversion of 3,961,734 shares of Series A convertible preferred stock, 1,555,689 shares of Series B convertible preferred stock (on an as-converted to common stock basis) and 3,346,914 shares of Series C convertible preferred stock held by Venrock Associates V, L.P. ("Venrock"), (ii) an aggregate of 751,547 shares of common stock issuable upon conversion of 335,889 shares of Series A convertible preferred stock, 131,896 shares of Series B convertible preferred stock (on an as-converted to common stock basis) and 283,762 shares of Series C convertible preferred stock held by Venrock Partners V, L.P. ("Venrock Partners") and (iii) an aggregate of 208,272 shares of common stock issuable upon conversion of 93,083 shares of Series A convertible preferred stock, 36,551 shares of Series B convertible preferred stock (on an as-converted to common stock basis) and 78,638 shares of Series C convertible preferred stock held by Venrock Entrepreneurs Fund V, L.P. ("Venrock Entrepreneurs"). The sole general partner of Venrock is Venrock Management V, LLC ("Venrock Management V"). The sole general partner of Venrock Partners is Venrock Partners Management V, LLC ("Venrock Partners Management V"). The sole general partner of Venrock Entrepreneurs is VEF Management V, LLC ("VEF"). Director Bryan E. Roberts is a partner of

Venrock, and as such, he may be deemed to have voting and investment power with respect to these shares. Director William H. Rastetter was formerly a partner of Venrock, but does not have voting or investment control over the shares held by the Venrock entities. The mailing address of the beneficial owner is 3340 Hillview Avenue, Palo Alto, CA 94304.

(5) Consists of: (i) an aggregate of 8,920,223 shares of common stock issuable upon conversion of 1,137,383 shares of Series A convertible preferred stock, 4,565,517 shares of Series B convertible preferred stock (on an as-converted to common stock basis) and 3,217,323 shares of Series C convertible preferred stock held by OVP Venture Partners VII, L.P. (“ OVP Venture Partners”) and (ii) an aggregate of 62,881 shares of common stock issuable upon conversion of 8,018 shares of Series A convertible preferred stock, 32,183 shares of Series B convertible preferred stock (on an as-converted to common stock basis) and 22,680 shares of Series C convertible preferred stock held by OVP VII Entrepreneurs Funds, L.P. (“OVP Entrepreneurs Fund”). The sole general partner of OVP Venture Partners is OVMC VII, LLC (“OVMC”). The sole general partner of OVP Entrepreneurs Fund is OVMC VII, LLC (“OVMC”). Director Carl Weissman is an assignee member of OVMC, and as such, he does not have direct voting or investment power with respect to these shares. The mailing address of the beneficial owner is 1616 Eastlake Ave. E., Suite 208, Seattle, WA 98102.

(6) Consists of options to purchase 930,503 shares of common stock that are exercisable within 60 days of May 31, 2013 held by Dr. Weyer, all shares of which, if exercised, would be subject to our right of repurchase.

(7) Consists of: (i) 227,675 shares of common stock and (ii) options to purchase 154,694 shares of common stock that are exercisable within 60 days of May 31, 2013 held by Mr. Wolchko.

(8) Consists of options to purchase 355,367 shares of common stock that are exercisable within 60 days of May 31, 2013 held by Dr. Multani.

(9) Consists of 769,346 shares of common stock held by The Rastetter Family Trust, dated September 2, 2010, 448,786 shares of which are subject to our right of repurchase. William H. Rastetter and Marisa Gard Rastetter, as co-trustees of The Rastetter Family Trust, share dispositive power over these shares. For more information regarding our right of repurchase over the restricted stock held by The Rastetter Family Trust, see “Executive and Director Compensation —Outstanding Equity Awards at Fiscal Year-End”.

(10) Consists of: (i) 910,700 shares of common stock, 227,675 shares of which are subject to our right of repurchase as set forth in the amended and restated restricted stock purchase agreement with Dr. Mendlein, and (ii) options to purchase 205,159 shares of common stock that are exercisable within 60 days of May 31, 2013 held by Dr. Mendlein, 141,049 shares of which, if exercised, would be subject to our right of repurchase. For more information regarding Dr. Mendlein’s restricted stock, see “Certain Relationships and Related Party Transactions—Consulting Agreement”.

(11) Consists of options to purchase 50,000 shares of common stock that are exercisable within 60 days of May 31, 2013 held by Mr. Enyedy.

(12) Includes the number of shares beneficially owned by the named executive officers and directors listed in the above table, as well as (i) 70,000 shares of common stock owned of record by Peter Flynn, our Senior Vice President, Early Program Development, (ii) options to purchase 186,591 shares of common stock that are exercisable within 60 days of May 31, 2013 held by Dr. Flynn, (iii) 225,000 shares of common stock owned of record by Daniel D. Shoemaker, our Chief Technology Officer, and (iv) options to purchase 144,885 shares of common stock that are exercisable within 60 days of May 31, 2013 held by Dr. Shoemaker.

DESCRIPTION OF CAPITAL STOCK

The following descriptions are summaries of the material terms of our amended and restated certificate of incorporation and amended and restated bylaws, which will be effective upon completion of this offering. The descriptions of the common stock and preferred stock give effect to changes to our capital structure that will occur immediately prior to the completion of this offering. We refer in this section to our amended and restated certificate of incorporation as our certificate of incorporation, and we refer to our amended and restated bylaws as our bylaws.

General

Upon completion of this offering, our authorized capital stock will consist of shares of common stock, par value $0.001 per share, and shares of preferred stock, par value $0.001 per share, all of which shares of preferred stock will be undesignated.

As of March 31, 2013, 55,664,352 shares of our common stock were outstanding and held by 76 stockholders of record. This amount assumes the conversion of all outstanding shares of our convertible preferred stock into common stock, which will occur immediately prior to the completion of this offering, but excludes the issuance of 2,625,000 shares of common stock pursuant to the redemption of an aggregate of 900,000 exchangeable shares of Fate Canada as described below, which will occur immediately prior to the completion of this offering. In addition, as of March 31, 2013, we had outstanding options to purchase 9,804,896 shares of our common stock under our 2007 Equity Incentive Plan, at a weighted average exercise price of $0.22 per share, 2,365,259 of which were exercisable.

Common Stock

The holders of our common stock are entitled to one vote for each share held on all matters submitted to a vote of the stockholders. The holders of our common stock do not have any cumulative voting rights. Holders of our common stock are entitled to receive ratably any dividends declared by the board of directors out of funds legally available for that purpose, subject to any preferential dividend rights of any outstanding preferred stock. Our common stock has no preemptive rights, conversion rights or other subscription rights or redemption or sinking fund provisions.

In the event of our liquidation, dissolution or winding up, holders of our common stock will be entitled to share ratably in all assets remaining after payment of all debts and other liabilities and any liquidation preference of any outstanding preferred stock. The shares to be issued by us in this offering will be, when issued and paid for, validly issued, fully paid and non-assessable.

Preferred Stock

Immediately prior to the completion of this offering, all outstanding shares of our convertible preferred stock will be converted into shares of our common stock. Immediately prior to the completion of this offering, our amended and restated certificate of incorporation will be amended and restated to delete all references to such shares of convertible preferred stock. Upon the completion of this offering, our board of directors will have the authority, without further action by our stockholders, to issue up to shares of preferred stock in one or more series and to fix the rights, preferences, privileges and restrictions thereof. These rights, preferences and privileges could include dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences, sinking fund terms and the number of shares constituting, or the designation of, such series, any or all of which may be greater than the rights of common stock. The issuance of our preferred stock could adversely affect the voting power of holders of common stock and the likelihood that such holders will receive dividend payments and payments upon our liquidation. In addition, the issuance of preferred stock could have the effect of delaying, deferring or preventing a change in control of our company or other corporate action. Immediately after completion of this offering, no shares of preferred stock will be outstanding, and we have no present plan to issue any shares of preferred stock.

Warrants

As of March 31, 2013, we had outstanding warrants to purchase 200,000 shares of Series C convertible preferred stock and 30,000 shares of Series B convertible preferred stock, which are exercisable for an aggregate of 234,482 shares of common stock upon the completion of this offering.

In January 2009, in connection with a loan and security agreement entered into with SVB, we issued to SVB a warrant to purchase $60,000 worth of shares of the class and series of stock issued in the first sale or issuance of shares of convertible preferred stock or other senior equity securities after the issue date of the warrant. Upon completion of the Series B preferred stock financing, this warrant became exercisable for 30,000 shares of Series B convertible preferred stock. The warrant has a net exercise provision and contains provisions for the adjustment of the exercise price and the number of shares issuable upon the exercise of the warrant in the event of certain stock dividends, stock splits, recapitalizations, reclassifications and consolidations. The warrant is exercisable until its expiration on January 5, 2019.

In August 2011, in connection with the second amendment of the loan and security agreement entered into with SVB, we issued to SVB a warrant to purchase $200,000 worth of shares of the class and series of stock issued in the first sale or issuance of shares of convertible preferred stock or other senior equity securities after the issue date of the warrant. Upon completion of the Series C preferred stock financing, this warrant became exercisable for 200,000 shares of Series C convertible preferred stock. The warrant has a net exercise provision and contains provisions for the adjustment of the exercise price and the number of shares issuable upon the exercise of the warrant in the event of certain stock dividends, stock splits, recapitalizations, reclassifications and consolidations. The warrant is exercisable until its expiration on August 25, 2021.

Exchangeable Shares in Canadian Subsidiary

As of March 31, 2013, there were 900,000 exchangeable shares outstanding in the capital of our subsidiary, Fate Canada, which will be redeemed on the date immediately prior to the date of completion of this offering for an aggregate of 2,625,000 shares of our common stock. In addition, we may be obligated to issue to the holders of exchangeable shares of Fate Canada up to an aggregate of 3,125,000 shares of our common stock for no additional consideration, subject to (i) the occurrence of certain preclinical, clinical and commercial milestone events or (ii) upon (a) any consolidation or merger, other than one in which our stockholders immediately prior to such transaction continue to hold at least a majority of the voting power of the surviving entity in substantially the same proportions, or any transaction or series of related transactions to which we are a party and in which over 50% of our voting power is transferred in an arm's length transaction, in each case excluding bona fide equity financings and transfers to affiliates, or (b) a sale of all or substantially all of our assets or business, in each case, following the completion of this offering.

Holders of substantially all of the exchangeable shares of Fate Canada are subject to lock-up agreements with the underwriters that restrict the sale of our securities for 180 days. See "Underwriting" for a description of these lock-up agreements.

Registration Rights

Upon the completion of this offering, the holders of 53,097,339 shares of our common stock, including shares issuable upon the conversion of convertible preferred stock, or their permitted transferees, are entitled to rights with respect to the registration of these securities under the Securities Act, which we refer to as our registrable securities. These rights are provided under the terms of an investor rights agreement between us and certain holders our common stock, Series A convertible preferred stock, Series B convertible preferred stock, Series B-1 convertible preferred stock and Series C convertible preferred stock. The investor rights agreement includes demand registration rights, short-form registration rights and piggyback registration rights. All fees, costs and expenses of underwritten registrations under these agreements will be borne by us and all selling expenses, including underwriting discounts and selling commissions, will be borne by the holders of the shares being registered.

Demand Registration Rights

Beginning 180 days after the completion of this offering, the holders of at least 40% of our registrable securities are entitled to demand registration rights. Under the terms of the investor rights agreement, upon the written request of such holders to sell registrable securities with an anticipated aggregate offering price (net of underwriting discounts and commissions) of at least $5.0 million, we will be required to use our best efforts to file a registration statement covering the offering and sale of such securities and use reasonable, diligent efforts to effect the registration of all or a portion of these securities for public resale. We are required to effect only two registrations pursuant to this provision of the investor rights agreement. In the event we register securities in connection with an underwritten offering, the underwriters will have the right to limit the number of shares included in such offering.

Short-Form Registration Rights

Upon the completion of this offering, the holders of at least 25% of our registrable securities are also entitled to short form registration rights. Pursuant to the investor rights agreement, if we are eligible to file a registration statement on Form S-3, upon the written request of such holders to sell registrable securities at an aggregate offering price (net of underwriting discounts and commissions) of at least $1.0 million, we will be required to use our best efforts to effect a registration of such securities. We are required to effect only two registrations in any twelve month period pursuant to this provision of the investor rights agreement. In the event we register securities in connection with an underwritten offering, the underwriters will have the right to limit the number of shares included in such offering.

Piggyback Registration Rights

Upon the completion of this offering, the holders of our registrable securities are entitled to piggyback registration rights. If we register any of our securities either for our own account or for the account of other security holders, such holders are entitled to include their shares in the registration. In the event we register securities in connection with an underwritten offering, the underwriters will have the right to limit the number of shares included in such offering.

Indemnification

Our investor rights agreement contains customary cross-indemnification provisions, under which we are obligated to indemnify holders of registrable securities 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 attributable to them.

Expiration of Registration Rights

The registration rights granted under the investor rights agreement will terminate after the earlier of (i) the fourth anniversary of the completion of this offering, (ii) with respect to any holder of registrable securities, the date on which all of such holder’s shares can be sold during a three-month period without registration in reliance on Rule 144 under the Securities Act, or (iii) termination of the agreement upon consent of the parties.

Registration Rights Related to Holders of Exchangeable Shares

In addition, to the extent that any of our officers, senior management employees or consultants, or any of their respective affiliates, have the right to require registration of, or have the opportunity to include their shares of common stock on a registration statement, we will provide the holders of exchangeable shares of Fate Canada with substantially similar registration rights. Such registration rights shall terminate two years after this offering.

Anti-Takeover Effects of Our Certificate of Incorporation and Bylaws and Delaware Law

Our certificate of incorporation and bylaws include a number of provisions that may have the effect of delaying, deferring or preventing another party from acquiring control of us and encouraging persons considering unsolicited tender offers or other unilateral takeover proposals to negotiate with our board of directors rather than pursue non-negotiated takeover attempts. These provisions include the items described below.

Board Composition and Filling Vacancies

Our certificate of incorporation provides for the division of our board of directors into three classes serving staggered three-year terms, with one class being elected each year. Our certificate of incorporation also provides that directors may be removed only for cause and then only by the affirmative vote of the holders of 75% or more of the shares then entitled to vote at an election of directors. Furthermore, any vacancy on our board of directors, however occurring, including a vacancy resulting from an increase in the size of our board, may only be filled by the affirmative vote of a majority of our directors then in office even if less than a quorum. The classification of directors, together with the limitations on removal of directors and treatment of vacancies, has the effect of making it more difficult for stockholders to change the composition of our board of directors.

No Written Consent of Stockholders

Our certificate of incorporation provides that all stockholder actions are required to be taken by a vote of the stockholders at an annual or special meeting, and that stockholders may not take any action by written consent in lieu of a meeting. This limit may lengthen the amount of time required to take stockholder actions and would prevent the amendment of our bylaws or removal of directors by our stockholders without holding a meeting of stockholders.

Meetings of Stockholders

Our certificate of incorporation and bylaws provide that only a majority of the members of our board of directors then in office may call special meetings of stockholders and only those matters set forth in the notice of the special meeting may be considered or acted upon at a special meeting of stockholders. Our bylaws limit the business that may be conducted at an annual meeting of stockholders to those matters properly brought before the meeting.

Advance Notice Requirements

Our bylaws establish advance notice procedures with regard to stockholder proposals relating to the nomination of candidates for election as directors or new business to be brought before meetings of our stockholders. These procedures provide that notice of stockholder proposals must be timely given in writing to our corporate secretary prior to the meeting at which the action is to be taken. Generally, to be timely, notice must be received at our principal executive offices not less than 90 days nor more than 120 days prior to the first anniversary date of the annual meeting for the preceding year. Our bylaws specify the requirements as to form and content of all stockholders' notices. These requirements may preclude stockholders from bringing matters before the stockholders at an annual or special meeting.

Amendment to Certificate of Incorporation and Bylaws

Any amendment of our certificate of incorporation must first be approved by a majority of our board of directors, and if required by law or our certificate of incorporation, must thereafter be approved by a majority of the outstanding shares entitled to vote on the amendment and a majority of the outstanding shares of each class entitled to vote thereon as a class, except that the amendment of the provisions relating to stockholder action, board composition, limitation of liability and the amendment of our bylaws and certificate of incorporation must be approved by not less than 75% of the outstanding shares entitled to vote on the amendment, and not less than 75% of the outstanding shares of each class entitled to vote thereon as a class. Our bylaws may be amended by the affirmative vote of a majority of the directors then in office, subject to any limitations set forth in the bylaws; and may also be amended by the affirmative vote of at least 75% of the outstanding shares entitled to vote on the amendment, or, if our board of directors recommends that the stockholders approve the amendment, by the affirmative vote of the majority of the outstanding shares entitled to vote on the amendment, in each case voting together as a single class.

Undesignated Preferred Stock

Our certificate of incorporation provides for authorized shares of preferred stock. The existence of authorized but unissued shares of preferred stock may enable our board of directors to discourage an attempt to obtain control of us by means of a merger, tender offer, proxy contest or otherwise. For example, if in the due exercise of its

fiduciary obligations, our board of directors were to determine that a takeover proposal is not in the best interests of our stockholders, our board of directors could cause shares of preferred stock to be issued without stockholder approval in one or more private offerings or other transactions that might dilute the voting or other rights of the proposed acquirer or insurgent stockholder or stockholder group. In this regard, our certificate of incorporation grants our board of directors broad power to establish the rights and preferences of authorized and unissued shares of preferred stock. The issuance of shares of preferred stock could decrease the amount of earnings and assets available for distribution to holders of shares of common stock. The issuance may also adversely affect the rights and powers, including voting rights, of these holders and may have the effect of delaying, deterring or preventing a change in control of us.

Section 203 of the Delaware General Corporation Law

Upon completion of this offering, we will be subject to the provisions of Section 203 of the Delaware General Corporation Law. In general, Section 203 prohibits a publicly held Delaware corporation from engaging in a "business combination" with an "interested stockholder" for a three-year period following the time that this stockholder becomes an interested stockholder, unless the business combination is approved in a prescribed manner. Under Section 203, a business combination between a corporation and an interested stockholder is prohibited unless it satisfies one of the following conditions:

- before the stockholder became interested, our board of directors approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;
- upon consummation of the transaction which resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the voting stock outstanding, shares owned by persons who are directors and also officers, and employee stock plans, in some instances, but not the outstanding voting stock owned by the interested stockholder; or
- at or after the time the stockholder became interested, the business combination was approved by our board of directors and authorized at an annual or special meeting of the stockholders by the affirmative vote of at least two-thirds of the outstanding voting stock which is not owned by the interested stockholder.

Section 203 defines a business combination to include:

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

In general, Section 203 defines an interested stockholder as any entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation and any entity or person affiliated with or controlling or controlled by the entity or person.

Exchange Listing

We have applied to list our common stock on The NASDAQ Global Market under the trading symbol "FATE."

Transfer Agent and Registrar

The transfer agent and registrar for our common stock will be . The transfer agent and registrar's address is .

SHARES ELIGIBLE FOR FUTURE SALE

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

Based on the number of shares outstanding as of March 31, 2013, upon the completion of this offering, shares of our common stock will be outstanding, assuming no exercise of the underwriters' option to purchase additional shares and no exercise of outstanding options or warrants. Of the outstanding shares, all of the shares sold in this offering will be freely tradable, except that any shares held by our affiliates, as that term is defined in Rule 144 under the Securities Act, may only be sold in compliance with the limitations described below.

Rule 144

In general, a person who has beneficially owned restricted stock for at least six months would be entitled to sell their securities provided that (i) such person is not deemed to have been one of our affiliates at the time of, or at any time during the 90 days preceding, a sale and (ii) we are subject to the Securities Exchange Act of 1934, as amended, periodic reporting requirements for at least 90 days before the sale. Persons who have beneficially owned restricted shares for at least six months but who are our affiliates at the time of, or any time during the 90 days preceding, a sale, would be subject to additional restrictions, by which such person would be entitled to sell within any three-month period only a number of securities that does not exceed the greater of either of the following:

- 1% of the number of shares then outstanding, which will equal approximately shares immediately after this offering assuming no exercise of the underwriters' option to purchase additional shares, based on the number of shares outstanding as of March 31, 2013; or
- 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 on Form 144 with respect to the sale;

provided, in each case, that we are subject to the Exchange Act periodic reporting requirements for at least 90 days before the sale. Such sales both by affiliates and by non-affiliates must also comply with the manner of sale, current public information and notice provisions of Rule 144.

Rule 701

Rule 701 under the Securities Act, as in effect on the date of this prospectus, permits resales of shares in reliance upon Rule 144 but without compliance with certain restrictions of Rule 144, including the holding period requirement. Most of our employees, executive officers or directors who purchased shares under a written compensatory plan or contract may be entitled to rely on the resale provisions of Rule 701, but all holders of Rule 701 shares are required to wait until 90 days after the date of this prospectus before selling their shares. However, substantially all Rule 701 shares are subject to lock-up agreements as described below and under "Underwriting" included elsewhere in this prospectus and will become eligible for sale upon the expiration of the restrictions set forth in those agreements.

Lock-Up Agreements

All of our directors and executive officers and holders of substantially all of our shares have signed a lock-up agreement which prevents them from selling any of our common stock or any securities convertible into or exercisable or exchangeable for common stock for a period of not less than 180 days from the date of this prospectus without the prior written consent of the representatives. The representatives may, subject to certain requirements, release some or all of the shares subject to lock-up agreements prior to the expiration of the 180-day period.

Registration Rights

Upon completion of this offering, certain holders of our securities will be entitled to various rights with respect to registration of their shares under the Securities Act. Registration of these shares under the Securities Act would result in these shares becoming fully tradable without restriction under the Securities Act immediately upon the effectiveness of the registration. See “Description of Capital Stock—Registration Rights” for additional information.

Equity Incentive Plans

We intend to file one or more registration statements on Form S-8 under the Securities Act to register our shares issued or reserved for issuance under our equity incentive plans. The first such registration statement is expected to be filed soon after the date of this prospectus and will automatically become effective upon filing with the SEC. Accordingly, shares registered under such registration statement will be available for sale in the open market, unless such shares are subject to vesting restrictions with us or the lock-up restrictions described above. As of , 2013, we estimate that such registration statement on Form S-8 will cover approximately shares.

MATERIAL UNITED STATES FEDERAL INCOME TAX CONSIDERATIONS FOR NON-U.S. HOLDERS

The following is a summary of material U.S. federal income tax considerations of the ownership and disposition of our common stock to non-U.S. holders. It is not intended to be a complete analysis of all the U.S. federal income tax considerations that may be relevant to non-U.S. holders. This summary is based upon the provisions of the Internal Revenue Code of 1986, as amended (the Code), Treasury regulations promulgated thereunder, administrative rulings and judicial decisions, all as of the date hereof. These authorities may be changed, possibly with retroactive effect, which may result in U.S. federal income tax consequences different from those set forth below. We have not sought any ruling from the Internal Revenue Service (the IRS) with respect to the statements made and the conclusions reached in the following summary. There can be no assurance that the IRS will agree with such statements and conclusions or that any contrary position taken by the IRS would not be sustained by a court.

This summary also does not address the tax considerations arising under the laws of any foreign, state or local jurisdiction. In addition, this discussion does not address tax considerations applicable to an investor's particular circumstances or to investors that may be subject to special tax rules, including, without limitation:

- banks, insurance companies or other financial institutions;
- persons subject to the alternative minimum tax;
- tax-exempt organizations;
- an integral part or controlled entity of a foreign sovereign;
- dealers in securities or currencies;
- traders in securities that elect to use a mark-to-market method of accounting for their securities holdings;
- persons that own, or are deemed to own, more than five percent of our capital stock (except to the extent specifically set forth below);
- controlled foreign corporations or passive foreign investment companies
- certain former citizens or long-term residents of the United States;
- persons who hold our common stock as a position in a hedging transaction, "straddle," "conversion transaction" or other risk reduction transaction;
- persons deemed to sell our common stock under the constructive sale provisions of the Code; or
- persons who hold our common stock other than as a capital asset (generally, an asset held for investment purposes).

In addition, if a partnership holds our common stock, the tax treatment of a partner generally will depend on the status of the partner and upon the activities of the partnership. Accordingly, partnerships that hold our common stock, and partners in such partnerships, should consult their tax advisors.

YOU ARE URGED TO CONSULT YOUR TAX ADVISOR WITH RESPECT TO THE APPLICATION OF THE UNITED STATES FEDERAL INCOME TAX LAWS TO YOUR PARTICULAR SITUATION, AS WELL AS ANY TAX CONSEQUENCES OF THE PURCHASE, OWNERSHIP AND DISPOSITION OF OUR COMMON STOCK ARISING UNDER THE UNITED STATES FEDERAL ESTATE OR GIFT TAX RULES OR UNDER THE LAWS OF ANY STATE, LOCAL, FOREIGN OR OTHER TAXING JURISDICTION OR UNDER ANY APPLICABLE TAX TREATY.

Non-U.S. Holder Defined

For purposes of this discussion, a "non-U.S. holder" is a beneficial owner of a share of common stock received that is (i) a foreign corporation, (ii) a nonresident alien individual, or (iii) a foreign estate or trust that in either case is not subject to U.S. federal income tax on a net income basis on income or gain from a note or share of common stock.

Distributions

We have not made any distributions on our common stock and do not plan to make any distributions for the foreseeable future. However, if we do make distributions on our common stock, those payments will constitute dividends for U.S. tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. To the extent those distributions exceed both our current and our accumulated earnings and profits, they will constitute a return of capital and will first reduce your basis in our common stock, but not below zero, and then will be treated as gain from the sale of stock, which will be subject to tax as described in "Gain on Disposition of Common Stock", below.

Any dividend paid to you generally will be subject to U.S. withholding tax either at a rate of 30% of the gross amount of the dividend or such lower rate as may be specified by an applicable income tax treaty. In order to receive a reduced treaty rate, you must provide us with an IRS Form W-8BEN or other appropriate version of IRS Form W-8 or successor form certifying qualification for the reduced rate.

Dividends received by you that are effectively connected with your conduct of a U.S. trade or business are exempt from such withholding tax. In order to obtain this exemption, you must provide us with an IRS Form W-8ECI or successor form properly certifying such exemption. Such effectively connected dividends, although not subject to withholding tax, are taxed at the same graduated rates applicable to U.S. persons, net of certain deductions and credits. In addition, if you are a corporate non-U.S. holder, dividends you receive that are effectively connected with your conduct of a U.S. trade or business may also be subject to a branch profits tax at a rate of 30% or such lower rate as may be specified by an applicable income tax treaty.

If you are eligible for a reduced rate of withholding tax pursuant to a tax treaty, you may obtain a refund of any excess amounts withheld if you file an appropriate claim for refund with the IRS.

Gain on Disposition of Common Stock

You generally will not be required to pay U.S. federal income tax on any gain realized upon the sale or other disposition of our common stock unless:

- the gain is effectively connected with your conduct of a U.S. trade or business;
- you are an individual non-U.S. holder who holds our common stock as a capital asset, who is present in the United States for a period or periods aggregating 183 days or more during the calendar year in which the sale or disposition occurs and certain other conditions are met; or
- our common stock constitutes a U.S. real property interest by reason of our status as a "United States real property holding corporation" for U.S. federal income tax purposes (a "USRPHC") at any time within the shorter of the five-year period preceding the disposition or your holding period for our common stock.

If you are a non-U.S. holder described in the first bullet above, you will be required to pay tax on the net gain derived from the sale under regular graduated U.S. federal income tax rates. Corporate non-U.S. holders described in the first bullet above may be subject to the branch profits tax at a 30% rate or such lower rate as may be specified by an applicable income tax treaty. If you are an individual non-U.S. holder described in the second bullet above, you will be required to pay a flat 30% tax on the gain derived from the sale, which may be offset by U.S.-source capital losses (even though you are not considered a resident of the United States). You should consult any applicable income tax or other treaties, which may provide different rules.

We believe that we are not currently and will not become a USRPHC. However, because the determination of whether we are a USRPHC depends on the fair market value of our U.S. real property relative to the fair market value of our other business assets, there can be no assurance that we will not become a USRPHC in the future. Even if we become a USRPHC, however, as long as our common stock is regularly traded on an established securities market, such common stock will be treated as U.S. real property interests only if you actually or constructively hold more than five percent of such regularly traded common stock at any time during the shorter of the five-year period preceding the disposition or your holding period for our common stock. If gain on the sale or other taxable disposition of our stock is ever subject to tax because we are a USRPHC, you would be subject to regular U.S. federal income tax with respect to such gain, generally in the same manner as a U.S. person.

Backup Withholding and Information Reporting

Generally, we must report annually to the IRS the amount of dividends paid to you, your name and address, and the amount of tax withheld, if any. A similar report will be sent to you. Pursuant to applicable income tax treaties or other agreements, the IRS may make these reports available to tax authorities in your country of residence.

Payments of dividends or of proceeds on the disposition of stock made to you may be subject to information reporting and backup withholding (currently at a rate of 28%) unless you establish an exemption, for example by properly certifying your non-U.S. status on a Form W-8BEN or another appropriate version of IRS Form W-8 or successor form. Notwithstanding the foregoing, backup withholding and information reporting may apply if either we or our paying agent has actual knowledge, or reason to know, that you are a U.S. person.

Backup withholding is not an additional tax; rather, the U.S. income tax liability of persons subject to backup withholding will be reduced by the amount of tax withheld. If withholding results in an overpayment of taxes, a refund or credit may be obtained, provided that the required information is furnished to the IRS in a timely manner.

FATCA

Code sections 1471 through 1474 provide new withholding rules designed to encourage information gathering and reporting on foreign accounts in which U.S. persons have or may have specified interests. This legislation imposes withholding taxes on certain types of payments made to “foreign financial institutions” (as specially defined under these rules) and certain other non-U.S. entities. The failure to comply with additional certification, information reporting and other specified requirements could result in withholding tax being imposed on payments of dividends and sales proceeds to foreign intermediaries and certain non-U.S. holders. The legislation potentially imposes a 30% withholding tax on dividends on or gross proceeds from the sale or other disposition of our common stock if they are paid to a foreign financial institution or to a foreign non-financial entity, unless (i) the foreign financial institution undertakes certain diligence and reporting obligations and other specified requirements are satisfied or (ii) the foreign non-financial entity either certifies it does not have any substantial U.S. owners or furnishes identifying information regarding each substantial U.S. owner and other specified requirements are satisfied. If the payee is a foreign financial institution, it must enter into an agreement with the U.S. Treasury requiring, among other things, that it undertake to identify accounts held by certain U.S. persons or U.S.-owned foreign entities, annually report certain information about such accounts and withhold 30% on payments to account holders whose actions prevent it from complying with these reporting and other requirements. The legislation would apply to payments made after December 31, 2013 and on all other withholdable payments after December 31, 2017. Prospective investors should consult their tax advisors regarding this legislation.

UNDERWRITING

We and the underwriters for the offering named below have entered into an underwriting agreement with respect to the shares of common stock being offered. Subject to the terms and conditions of the underwriting agreement, each underwriter has severally agreed to purchase from us the number of shares of common stock set forth opposite its name below. Cowen and Company, LLC and BMO Capital Markets Corp. are the representatives of the underwriters.

Underwriter	Number of Shares
Cowen and Company, LLC	
BMO Capital Markets Corp.	
Wedbush Securities Inc.	
Total	

The underwriting agreement provides that the obligations of the underwriters are subject to certain conditions precedent and that the underwriters have agreed, severally and not jointly, to purchase all of the shares of common stock sold under the underwriting agreement if any of these shares are purchased, other than those shares covered by the option to purchase additional shares described below. If an underwriter defaults, the underwriting agreement provides that the purchase commitments of the non-defaulting underwriters may be increased or the underwriting agreement may be terminated.

We have agreed to indemnify the underwriters against specified liabilities, including liabilities under the Securities Act, and to contribute to payments the underwriters may be required to make in respect thereof.

The underwriters are offering the shares of common stock, subject to prior sale, when, as and if issued to and accepted by them, subject to approval of legal matters by their counsel and other conditions specified in the underwriting agreement. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

Option to Purchase Additional Shares

We have granted to the underwriters an option to purchase up to additional shares of common stock at the public offering price, less the underwriting discount. This option is exercisable for a period of 30 days. To the extent that the underwriters exercise this option, the underwriters will purchase additional shares from us in approximately the same proportion as shown in the table following the first paragraph of this section.

Discount

The following table shows the public offering price, underwriting discount and proceeds, before expenses, to us. These amounts are shown assuming both no exercise and full exercise of the underwriters' option to purchase additional shares of common stock.

We estimate that our total expenses of the offering, excluding the underwriting discount, will be approximately $ million and are payable by us. We have also agreed to reimburse the underwriters for certain of their expenses, in an amount of up to $, as set forth in the underwriting agreement.

		Total	
	Per Share	No Exercise	Full Exercise
Public offering price	$	$	$
Underwriting discount			
Proceeds, before expenses, to us			

The underwriters propose to offer the shares of common stock to the public at the public offering price set forth on the cover of this prospectus. The underwriters may offer the shares to securities dealers at the public offering price less a concession not in excess of $ per share. The underwriters may allow, and the

dealers may reallow, a discount not in excess of $ per share to other dealers. If all of the shares are not sold at the public offering price, the underwriters may change the offering price and other selling terms.

Discretionary Accounts

The underwriters do not intend to confirm sales of the shares of common stock to any accounts over which they have discretionary authority.

Market Information

Prior to this offering, there has been no public market for our common stock. The initial public offering price will be determined by negotiations between us and the representatives of the underwriters. In addition to prevailing market conditions, the factors to be considered in these negotiations include:

- the history of, and prospects for, our company and the industry in which we compete;
- our past and present financial information;
- an assessment of our management; its past and present operations, and the prospects for, and timing of, our future revenues;
- the present state of our development; and
- the above factors in relation to market values and various valuation measures of other companies engaged in activities similar to ours.

An active trading market for our common stock may not develop, or if such a market develops, may not be sustained. It is also possible that after the offering, the shares will not trade in the public market at or above the initial public offering price.

We have applied to list our common stock on The NASDAQ Global Market under the symbol “FATE.”

Price Stabilization, Short Positions and Penalty Bids

Stabilization

In connection with this offering, the underwriters may engage in stabilizing transactions, purchases of additional shares, syndicate covering transactions, penalty bids and purchases to cover positions created by short sales.

- Stabilizing transactions permit bids to purchase shares of our common stock so long as the stabilizing bids do not exceed a specified maximum, and are engaged in for the purpose of preventing or retarding a decline in the market price of our common stock while the offering is in progress.
- Sales by the underwriters of shares of our common stock in excess of the number of shares the underwriters are obligated to purchase create a syndicate short position which may be either a covered short position or a naked short position. In a covered short position, the number of shares sold by the underwriters is not greater than the number of shares that they may purchase pursuant to their option to purchase additional shares. In a naked short position, the number of shares sold is greater than the number of shares they may purchase pursuant to their option to purchase additional shares. The underwriters may close out any short position by exercising the option to purchase additional shares from the Company or purchasing shares of common stock in the open market.
- Syndicate covering transactions involve purchases of shares of our common stock in the open market after the distribution has been completed in order to cover syndicate short positions. In determining the source of shares of common stock to close out the short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared with the price at which they may purchase shares through exercise of their option to purchase additional shares. If the underwriters sell more shares than could be covered by exercise of their option to purchase additional

shares and, therefore, have a naked short position, the position can be closed out only by buying securities in the open market. A naked short position is more likely to be created if the underwriters are concerned that after pricing there could be downward pressure on the price of our common stock in the open market that could adversely affect investors who purchase in the offering.

- Penalty bids permit the underwriters to reclaim a selling concession from a syndicate member when the shares of common stock originally sold by that syndicate member are purchased in stabilizing or syndicate covering transactions to cover syndicate short positions.

These stabilizing transactions, syndicate covering transactions and penalty bids may have the effect of raising or maintaining the market price of our common stock or preventing or retarding a decline in the market price of our common stock. As a result, the price of our common stock in the open market may be higher than it would otherwise be in the absence of these transactions. Neither we nor the underwriters make any representation or prediction as to the effect that the transactions described above may have on the price of shares of our common stock. These transactions may be effected on The NASDAQ Global Market, in the over-the-counter market or otherwise and, if commenced, may be discontinued at any time.

Lock-Up Agreements

Pursuant to certain “lock-up” agreements, we and our executive officers, directors and holders of substantially all of our capital stock have agreed, subject to certain exceptions, not to offer, sell, assign, transfer, pledge, contract to sell, or otherwise dispose of or announce the intention to otherwise dispose of, or enter into any swap, hedge or similar agreement or arrangement that transfers, in whole or in part, the economic consequence of ownership of, directly or indirectly, or make any demand or request or exercise any right with respect to the registration of, or file with the SEC a registration statement under the Securities Act relating to, any common stock or securities convertible into or exchangeable or exercisable for any common stock without the prior written consent of both of the representatives of the underwriters, for a period of 180 days after the date of the pricing of the offering.

Electronic Offer, Sale and Distribution of Shares

A prospectus in electronic format may be made available on the websites maintained by one or more of the underwriters or selling group members, if any, participating in this offering and one or more of the underwriters participating in this offering may distribute prospectuses electronically. The representatives may agree to allocate a number of shares to underwriters and selling group members for sale to their online brokerage account holders. Internet distributions will be allocated by the underwriters and selling group members that will make Internet distributions on the same basis as other allocations. Other than the prospectus in electronic format, the information on these websites is not part of this prospectus or the registration statement of which this prospectus forms a part, has not been approved or endorsed by us or any underwriter in its capacity as underwriter, and should not be relied upon by investors.

Other Relationships

Certain of the underwriters and their affiliates have provided, and may in the future provide, various investment banking, commercial banking and other financial services for us and our affiliates for which they have received, and may in the future receive, customary fees.

Selling Restrictions

No action has been taken in any jurisdiction except the United States that would permit a public offering of our common stock, or the possession, circulation or distribution of this prospectus or any other material relating to us or our common stock in any jurisdiction where action for that purpose is required. Accordingly, the shares may not be offered or sold, directly or indirectly, and neither this prospectus nor any other offering material or advertisements in connection with the shares may be distributed or published, in or from any country or jurisdiction except in compliance with any applicable rules and regulations of any such country or jurisdiction.

United Kingdom

Each of the underwriters has, separately and not jointly, represented and agreed that:

- it has not made or will not make an offer of the securities to the public in the United Kingdom within the meaning of Section 102B of the Financial Services and Markets Act 2000 (as amended), or the FSMA, except to legal entities which are authorized or regulated to operate in the financial markets or, if not so authorized or regulated, whose corporate purpose is solely to invest in securities or otherwise in circumstances which do not require the publication by us of a prospectus pursuant to the Prospectus Rules of the Financial Services Authority, or FSA;
- it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of Section 21 of FSMA) to persons who have professional experience in matters relating to investments falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 or in circumstances in which Section 21 of FSMA does not apply to us; and
- it has complied with and will comply with all applicable provisions of FSMA with respect to anything done by it in relation to the securities in, from or otherwise involving the United Kingdom.

Switzerland

The securities will not be offered, directly or indirectly, to the public in Switzerland and this prospectus does not constitute a public offering prospectus as that term is understood pursuant to article 652a or 1156 of the Swiss Federal Code of Obligations.

European Economic Area

In relation to each Member State of the European Economic Area (Iceland, Norway and Lichtenstein in addition to the member states of the European Union) that has implemented the Prospectus Directive (each, a Relevant Member State), each underwriter has, separately and not jointly, represented and agreed that with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State, or the Relevant Implementation Date, it has not made and will not make an offer of the securities to the public in that Relevant Member State prior to the publication of a prospectus in relation to the securities that has been approved by the competent authority in that Relevant Member State or, where appropriate, approved in another Relevant Member State and notified to the competent authority in that Relevant Member State, all in accordance with the Prospectus Directive, except that it may, with effect from and including the Relevant Implementation Date, make an offer of the securities to the public in that Relevant Member State at any time:

- to legal entities which are authorized or regulated to operate in the financial markets or, if not so authorized or regulated, whose corporate purpose is solely to invest in securities;
- to any legal entity which has two or more of (1) an average of at least 250 employees during the last financial year; (2) a total balance sheet of more than €43,000,000 and (3) an annual net turnover of more than €50,000,000, as shown in its last annual or consolidated accounts; and
- in any other circumstances which do not require the publication by the issuer of a prospectus pursuant to Article 3 of the Prospectus Directive.

Each person in a Relevant Member State who receives any communication in respect of, or who acquires any securities under, the offer contemplated in this prospectus will be deemed to have represented, warranted and agreed to and with us and the underwriters that:

- it is a qualified investor within the meaning of the law in that Relevant Member State implementing Article 2(1)(e) of the Prospectus Directive; and
- in the case of any securities acquired by it as a financial intermediary, as that term is used in Article 3(2) of the Prospectus Directive, (1) the securities acquired by it in the offer have not been acquired on behalf

of, nor have they been acquired with a view to their offer or resale to, persons in any Relevant Member State other than qualified investors, as that term is defined in the Prospectus Directive, or in circumstances in which the prior consent of the underwriters has been given to the offer or resale; or (2) where securities have been acquired by it on behalf of persons in any Relevant Member State other than qualified investors, the offer of those securities to it is not treated under the Prospectus Directive as having been made to such persons.

For the purposes of the provisions in the two immediately preceding paragraphs, the expression an "offer of the securities to the public" in relation to the securities 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 same may be varied in that Relevant Member State by any measure implementing the Prospectus Directive in that Relevant Member State, and the expression "Prospectus Directive" means Directive 2003/71/EC and includes any relevant implementing measure in each Relevant Member State.

United Arab Emirates

This document has not been reviewed, approved or licensed by the Central Bank of the United Arab Emirates, or UAE, Emirates Securities and Commodities Authority or any other relevant licensing authority in the UAE including any licensing authority incorporated under the laws and regulations of any of the free zones established and operating in the territory of the UAE, in particular the Dubai International Financial Services Authority, or DFSA, a regulatory authority of the Dubai International Financial Centre, or DIFC. The issue of shares of common stock does not constitute a public offer of securities in the UAE, DIFC or any other free zone in accordance with the Commercial Companies law, Federal Law No. 8 of 1984 (as amended), DFSA Offered Securities Rules and the Dubai International Financial Exchange Listing Rules, accordingly or otherwise.

The shares may not be offered to the public in the UAE or any of the free zones including, in particular, the DIFC. The shares may be offered and this document may be issued, only to a limited number of investors in the UAE or any of its free zones (including, in particular, the DIFC) who qualify as sophisticated investors under the relevant laws and regulations of the UAE or the free zone concerned. Management of our company and the representatives of the underwriters represent and warrant the shares will not be offered, sold, transferred or delivered to the public in the UAE or any of its free zones.

Israel

In the State of Israel this prospectus shall not be regarded as an offer to the public to purchase shares of common stock under the Israeli Securities Law, 5728—1968, which requires a prospectus to be published and authorized by the Israel Securities Authority, if it complies with certain provisions of Section 15 of the Israeli Securities Law, 5728—1968, including, inter alia, if: (i) the offer is made, distributed or directed to not more than 35 investors, subject to certain conditions, or the Addressed Investors; or (ii) the offer is made, distributed or directed to certain qualified investors defined in the First Addendum of the Israeli Securities Law, 5728—1968, subject to certain conditions, or the Qualified Investors. The Qualified Investors shall not be taken into account in the count of the Addressed Investors and may be offered to purchase securities in addition to the 35 Addressed Investors. Our company has not and will not take any action that would require it to publish a prospectus in accordance with and subject to the Israeli Securities Law, 5728—1968. We have not and will not distribute this prospectus or make, distribute or direct an offer to subscribe for our common stock to any person within the State of Israel, other than to Qualified Investors and up to 35 Addressed Investors.

Qualified Investors may have to submit written evidence that they meet the definitions set out in of the First Addendum to the Israeli Securities Law, 5728—1968. In particular, we may request, as a condition to be offered common stock, that Qualified Investors will each represent, warrant and certify to us or to anyone acting on our behalf: (i) that it is an investor falling within one of the categories listed in the First Addendum to the Israeli Securities Law, 5728—1968; (ii) which of the categories listed in the First Addendum to the Israeli Securities Law, 5728—1968 regarding Qualified Investors is applicable to it; (iii) that it will abide by all provisions set

forth in the Israeli Securities Law, 5728—1968 and the regulations promulgated thereunder in connection with the offer to be issued common stock; (iv) that the shares of common stock that it will be issued are, subject to exemptions available under the Israeli Securities Law, 5728—1968: (a) for its own account; (b) for investment purposes only; and (c) not issued with a view to resale within the State of Israel, other than in accordance with the provisions of the Israeli Securities Law, 5728—1968; and (v) that it is willing to provide further evidence of its Qualified Investor status. Addressed Investors may have to submit written evidence in respect of their identity and may have to sign and submit a declaration containing, inter alia, the Addressed Investor's name, address and passport number or Israeli identification number.

LEGAL MATTERS

The validity of the shares of common stock offered by this prospectus will be passed upon for us by Goodwin Procter LLP, San Diego, California. Certain legal matters will be passed upon for the underwriters by Morgan, Lewis & Bockius LLP, Palo Alto, California.

EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our consolidated financial statements at December 31, 2011 and 2012, and for each of the two years in the period ended December 31, 2012, and for the period from April 27, 2007 (inception) to December 31, 2012, as set forth in their report (which contains an explanatory paragraph describing conditions that raise substantial doubt about our ability to continue as a going concern as described in Note 1 to the consolidated financial statements). We have included our financial statements in the prospectus and elsewhere in the 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 (File Number 333-) under the Securities Act with respect to the common stock we are offering by this prospectus. This prospectus does not contain all of the information included in the registration statement. For further information pertaining to us and our common stock, you should refer to the registration statement and to its exhibits. Whenever we make reference in this prospectus to any of our contracts, agreements or other documents, the references are not necessarily complete, and you should refer to the exhibits attached to the registration statement for copies of the actual contract, agreement or other document.

Upon the completion of the offering, we will be subject to the informational requirements of the Securities Exchange Act of 1934 and will file annual, quarterly and current reports, proxy statements and other information with the SEC. You can read our SEC filings, including the registration statement, over the Internet at the SEC's website at www.sec.gov. You may also read and copy any document we file with the SEC at its public reference facility at 100 F Street, N.E., Room 1580, Washington, D.C. 20549.

You may also obtain copies of the documents at prescribed rates by writing to the Public Reference Section of the SEC at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the public reference facilities.

Fate Therapeutics, Inc.
(A Development Stage Company)

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Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders of
Fate Therapeutics, Inc.

We have audited the accompanying consolidated balance sheets of Fate Therapeutics, Inc. (a development stage company), as of December 31, 2011 and 2012, and the related consolidated statements of operations and comprehensive loss, convertible preferred stock and stockholders' deficit, and cash flows for the years then ended and for the period from April 27, 2007 (inception) to December 31, 2012. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated 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 audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Fate Therapeutics, Inc. at December 31, 2011 and 2012, and the consolidated results of its operations and its cash flows for the years then ended and for the period from April 27, 2007 (inception) to December 31, 2012, in conformity with U.S. generally accepted accounting principles.

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to the financial statements, the Company has recurring losses and negative cash flows from operations that raise substantial doubt about its ability to continue as a going concern. Management's plans in regard to these matters are also described in Note 1. The consolidated financial statements do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts and classification of liabilities that may result from the outcome of this uncertainty.

/s/ Ernst & Young LLP

San Diego, California
June 17, 2013

Fate Therapeutics, Inc.
(A Development Stage Company)

Consolidated Balance Sheets
(in thousands, except share and per share data)

	December 31, 2011	December 31, 2012	March 31, 2013 (unaudited)	Pro Forma March 31, 2013 (unaudited)
Assets				
Current assets:				
Cash and cash equivalents	$ 6,387	$ 9,087	$ 4,647	
Prepaid expenses and other assets	301	706	630	
Total current assets	6,688	9,793	5,277	
Property and equipment, net	1,042	1,161	1,011	
Other assets	–	–	27	
Restricted cash	122	122	122	
Total assets	$ 7,852	$ 11,076	$ 6,437	
Liabilities, convertible preferred stock and stockholders' deficit				
Current liabilities:				
Accounts payable and accrued expenses	$ 1,863	$ 2,268	$ 1,550	
Current portion of deferred revenue	146	63	42	
Current portion of deferred rent	197	251	258	
Convertible note	1,000	–	–	
Repurchase liability for unvested equity awards	–	143	130	
Preferred stock warrant liability	221	184	172	$ –
Long-term debt, current portion	248	1,941	1,951	
Total current liabilities	3,675	4,850	4,103	
Deferred rent	383	132	66	
Accrued expenses	14	110	131	
Exchangeable share liability	563	551	656	–
Long-term debt, less current portion	3,591	1,732	1,240	
Commitments and contingencies (Note 4)				
Convertible preferred stock, $0.001 par value; authorized shares - 33,200,000 at December 31, 2011 and 62,200,000 at December 31, 2012 and March 31, 2013 (unaudited); issued and outstanding shares - 32,353,366 at December 31, 2011 and 44,967,690 at December 31, 2012 and March 31, 2013 (unaudited); liquidation preference of $50,097 at December 31, 2011 and $58,518 at December 31, 2012 and March 31, 2013 (unaudited); no shares issued and outstanding, pro forma (unaudited)	50,309	56,526	56,526	–
Stockholders' deficit:				
Common stock, $0.001 par value; authorized shares - 51,100,000 at December 31, 2011 and 100,000,000 at December 31, 2012 and March 31, 2013 (unaudited); issued and outstanding - 7,310,695 at December 31, 2011 and 8,671,958 at December 31, 2012 and March 31, 2013 (unaudited); 58,289,352 shares issued and outstanding, pro forma (unaudited)	7	9	9	58
Additional paid-in capital	686	12,781	12,869	70,174
Deficit accumulated during the development stage	(51,376)	(65,615)	(69,163)	(69,163)
Total stockholders' deficit	(50,683)	(52,825)	(56,285)	$ 1,069
Total liabilities, convertible preferred stock and stockholders' deficit	$ 7,852	$ 11,076	$ 6,437	

See accompanying notes.

Fate Therapeutics, Inc.
(A Development Stage Company)

Consolidated Statements of Operations and Comprehensive Loss
(in thousands, except share and per share data)

	Years Ended December 31,		Period From April 27, 2007 (inception) to December 31, 2012	Three Months Ended March 31,		Period From April 27, 2007 (inception) to March 31, 2013
	2011	2012		2012	2013	
				(unaudited)		(unaudited)
Revenue:						
Collaboration revenue	$ 833	$ 1,268	$ 2,301	$ 208	$ 209	$ 2,510
Grant revenue	337	1,402	1,739	210	263	2,002
Total revenue	1,170	2,670	4,040	418	472	4,512
Operating expenses:						
Research and development	9,858	11,999	44,979	2,481	2,531	47,510
General and administrative	4,605	4,228	24,071	1,057	1,297	25,368
Total operating expenses	14,463	16,227	69,050	3,538	3,828	72,878
Loss from operations	(13,293)	(13,557)	(65,010)	(3,120)	(3,356)	(68,366)
Other income (expense):						
Interest income	2	1	186	–	1	187
Interest expense	(127)	(487)	(1,845)	(116)	(100)	(1,945)
Income from 48D tax credit	–	–	1,231	–	–	1,231
Loss on extinguishment of debt	(9)	(323)	(332)	–	–	(332)
Change in fair value of warrant liability	5	37	43	2	12	55
Change in fair value of exchangeable shares	(5)	90	112	–	(105)	7
Total other income (expense)	(134)	(682)	(605)	(114)	(192)	(797)
Net loss and comprehensive loss	$ (13,427)	$ (14,239)	$ (65,615)	$ (3,234)	$ (3,548)	$ (69,163)
Net loss per common share, basic and diluted	$ (2.49)	$ (2.01)		$ (0.53)	$ (0.45)	
Weighted-average shares used to compute basic and diluted net loss per share	5,401,234	7,087,303		6,126,883	7,886,614	
Pro forma net loss per common share, basic and diluted (unaudited)		$ (0.30)			$ (0.06)	
Weighted-average shares used to compute pro forma net loss per common share, basic and diluted (unaudited)		48,521,484			57,504,008	

See accompanying notes.

Fate Therapeutics, Inc.
(A Development Stage Company)

Consolidated Statements of Convertible Preferred Stock and Stockholders' Deficit
(in thousands, except share data)

	Convertible Preferred Stock		Common Stock		Additional Paid-in Capital	Deficit Accumulated During the Development Stage	Total Stockholders' Deficit
	Shares	Amount	Shares	Amount			
Balance at April 27, 2007 (inception)	–	$ –	–	$ –	$ –	$ –	$ –
Issuance of common stock to founders and consultants at $0.001 per share for cash in September 2007	–	–	5,208,334	5	–	–	5
Issuance of Series A convertible preferred stock for cash at $1.00 per share in September and November 2007 for cash, net of issuance costs of $115	1,655,435	1,541	–	–	–	–	–
Net loss	–	–	–	–	–	(1,224)	(1,224)
Balance at December 31, 2007	1,655,435	1,541	5,208,334	5	–	(1,224)	(1,219)
Repurchase of common stock			(1,533,333)	(2)	–	–	(2)
Issuance of common stock to founders and consultants at $0.007 per share for cash	–	–	2,732,099	4	14	–	18
Issuance of Series A convertible preferred stock for $1.00 per share in cash, net of issuance costs of $40	12,953,751	12,914	–		–	–	–
Exercise of stock options	–	–	136,008	–	1	–	1
Issuance of common stock for technology			120,000	–	1	–	1
Stock-based compensation	–	–	–	–	17	–	17
Net loss	–	–	–	–	–	(7,169)	(7,169)
Balance at December 31, 2008	14,609,186	14,455	6,663,108	7	33	(8,393)	(8,353)
Repurchase of common stock			(421,628)	–	(4)		(4)
Issuance of Series B convertible preferred stock at $2.00 per share for cash and conversion of debt, net of issuance costs of $134	16,244,180	32,354	–		–	–	–
Exercise of stock options	–	–	1,338,521	1	20	–	21
Issuance of common stock for technology			305,000	–	17	–	17
Stock-based compensation	–	–	–	–	196	–	196
Net loss	–	–	–	–	–	(13,334)	(13,334)
Balance at December 31, 2009	30,853,366	$ 46,809	7,885,001	$ 8	$ 262	$ (21,727)	$ (21,457)

See accompanying notes.

Fate Therapeutics, Inc.
(A Development Stage Company)

Consolidated Statements of Convertible Preferred Stock and Stockholders' Deficit
(in thousands, except share data)

	Convertible Preferred Stock		Common Stock		Additional Paid-in Capital	Deficit Accumulated During the Development Stage	Total Stockholders' Deficit
	Shares	Amount	Shares	Amount			
Balance at December 31, 2009	30,853,366	$ 46,809	7,885,001	$ 8	$ 262	$ (21,727)	$ (21,457)
Repurchase of common stock	–	–	(31,250)	–	–	–	–
Exercise of stock options	–	–	140,415	–	10	–	10
Issuance of common stock for technology	–	–	20,000	–	5	–	5
Stock-based compensation	–	–	–	–	229	–	229
Net loss	–	–	–	–	–	(16,222)	(16,222)
Balance at December 31, 2010	30,853,366	46,809	8,014,166	8	506	(37,949)	(37,435)
Repurchase of common stock	–	–	(824,665)	(1)	(6)	–	(7)
Exercise of stock options	–	–	121,194	–	14	–	14
Issuance of Series B convertible preferred stock at $2.33 per share for cash	1,500,000	3,500	–	–	–	–	–
Stock-based compensation	–	–	–	–	172	–	172
Net loss	–	–	–	–	–	(13,427)	(13,427)
Balance at December 31, 2011	32,353,366	50,309	7,310,695	7	686	(51,376)	(50,683)
Exercise of stock options	–	–	72,499	–	15	–	15
Issuance of common stock at $0.25 per share for cash	–	–	769,346	1	191	–	192
Repurchase liability for unvested equity awards	–	–	–	–	(143)	–	(143)
Issuance of common stock for technology	–	–	100,000	–	21	–	21
Conversion of preferred stock into common stock	(5,694,180)	(11,889)	569,418	1	11,888	–	11,889
Exchange of debt and common stock for Series B-1 convertible preferred stock	1,500,000	1,380	(150,000)	–	(32)	–	(32)
Issuance of Series C convertible preferred stock at $1.00 per share for cash, net of issuance costs of $83	16,808,504	16,726	–	–	–	–	–
Stock-based compensation	–	–		–	155		155
Net loss	–	–	–	–	–	(14,239)	(14,239)
Balance at December 31, 2012	44,967,690	56,526	8,671,958	9	12,781	(65,615)	(52,825)
Repurchase liability for unvested equity awards (unaudited)	–	–	–	–	13	–	13
Stock-based compensation (unaudited)	–	–	–	–	75	–	75
Net loss (unaudited)	–	–	–	–	–	(3,548)	(3,548)
Balance at March 31, 2013 (unaudited)	44,967,690	$ 56,526	8,671,958	$ 9	$ 12,869	$ (69,163)	$ (56,285)

See accompanying notes.

Fate Therapeutics, Inc.
(A Development Stage Company)

Consolidated Statements of Cash Flows
(in thousands)

	Years Ended December 31,		Period From April 27, 2007 (inception) to December 31,	Three Months Ended March 31,		Period From April 27, 2007 (inception) to March 31,
	2011	2012	2012	2012	2013	2013
				(unaudited)		(unaudited)
Cash flows from operating activities						
Net loss	$(13,427)	$ (14,239)	$ (65,615)	$ (3,234)	$ (3,548)	$ (69,163)
Adjustments to reconcile net loss to net cash used in operating activities						
Depreciation and amorization	672	590	1,937	138	157	2,094
Issuances of common stock for technology	–	21	44	–	–	44
Stock-based compensation	172	155	769	26	75	844
Amortization of discounts	23	84	141	21	18	159
Noncash interest expense	13	121	1,022	22	22	1,044
Deferred rent	228	(197)	383	(49)	(59)	324
Deferred revenue	(646)	(83)	63	(21)	(21)	42
Initial fair value and change in fair value of exchangeable shares	356	(12)	551	–	105	656
Change in fair value of preferred stock warrants	(5)	(37)	(43)	(2)	(12)	(55)
Loss on disposal of assets	117	–	117	–	–	117
Loss on extinguishment of debt	9	323	332	–	–	332
Changes in assets and liabilities:						
Prepaid expenses and other assets	209	(405)	(706)	(375)	49	(657)
Accounts payable and accrued expenses	134	405	2,269	(24)	(719)	1,550
Net cash used in operating activities	(12,145)	(13,274)	(58,736)	(3,498)	(3,933)	(62,669)
Cash flows from investing activities						
Purchase of property and equipment	(2)	(709)	(3,417)	(35)	(7)	(3,424)
Proceeds from sale of property and equipment	202	–	202	–	–	202
Restricted cash	–	–	(122)	–	–	(122)
Net cash provided by (used in) investing activities	200	(709)	(3,337)	(35)	(7)	(3,344)
Cash flows from financing activities						
Issuance of common stock for cash	14	207	271	194	–	271
Repurchase of common stock for cash	(7)	–	(7)	–	–	(7)
Issuance of convertible promissory note	1,000	–	8,500	–	–	8,500
Proceeds from long-term debt	3,400	–	6,400	–	–	6,400
Payments on long-term debt	(800)	(250)	(2,650)	–	(500)	(3,150)
Issuance of convertible preferred stock for cash, net of offering costs	3,500	16,726	58,646	–	–	58,646
Net cash provided by (used in) financing activities	7,107	16,683	71,160	194	(500)	70,660
Net (decrease) increase in cash and cash equivalents	(4,838)	2,700	9,087	(3,339)	(4,440)	4,647
Cash and cash equivalents, beginning of period	11,225	6,387	–	6,387	9,087	–
Cash and cash equivalents, end of period	$ 6,387	$ 9,087	$ 9,087	$ 3,048	$ 4,647	$ 4,647
Supplemental disclosure of cash flow information						
Interest paid	$ 90	$ 282	$ 680	$ 71	$ 60	$ 740
Supplemental schedule of noncash investing and financing activities						
Conversion of notes payable and accrued interest for Series B convertible preferred stock	$ –	$ –	$ 8,388	$ –	$ –	$ 8,388
Issuance of warrants in connection with long-term debt	$ 172	$ –	$ 226	$ –	$ –	$ 226

See accompanying notes.

Fate Therapeutics, Inc.
(A Development Stage Company)

Notes to Consolidated Financial Statements
(Information as of March 31, 2013 and thereafter and for the three months ended March 31, 2012 and 2013 and the period from April 27, 2007 (inception) to March 31, 2013 is unaudited)

1. Organization and Summary of Significant Accounting Policies

Organization

Fate Therapeutics, Inc. (the "Company") was incorporated in the state of Delaware on April 27, 2007 and has its principal operations in San Diego, California. The Company is a clinical-stage biopharmaceutical company engaged in the discovery and development of pharmacologic modulators of adult stem cells. Based on the Company's understanding of key biological mechanisms that guide the fate of adult stem cells, the Company has built two platforms that optimize the activity and enhance the therapeutic potential of adult stem cells: its HSC modulation platform and its SSC modulation platform.

Liquidity

As of December 31, 2012 and March 31, 2013, the Company has devoted substantially all of its efforts to product development, raising capital and building infrastructure and has not generated revenues from its planned principal operations. Accordingly, the Company is considered to be in the development stage.

The Company has a limited operating history and the revenue and income potential of the Company's business and market are unproven. The Company has experienced net losses and negative cash flows from operating activities since its inception, and as of December 31, 2012 and March 31, 2013, had a deficit accumulated during the development stage of $65.6 million and $69.2 million, respectively. The Company expects to continue to incur net losses into the foreseeable future. Successful transition to attaining profitable operations is dependent upon achieving a level of revenues adequate to support the Company's cost structure.

The Company plans to continue to fund its losses from operations and capital funding needs through future debt and equity financing. If the Company is not able to secure adequate additional funding, the Company may be forced to make reductions in spending, extend payment terms with suppliers, liquidate assets where possible, or suspend or curtail planned programs. Any of these actions could materially harm the Company's business, results of operations, and future prospects.

The Company's recurring losses from operations and negative cash flows raise substantial doubt about its ability to continue as a going concern. The accompanying consolidated financial statements have been prepared on a going concern basis, which contemplates the realization of assets and the satisfaction of liabilities in the normal course of business. The Company may never become profitable, or if it does, it may not be able to sustain profitability on a recurring basis.

Use of Estimates

The Company's consolidated financial statements are prepared in accordance with accounting principles generally accepted in the United States ("GAAP"). The preparation of the Company's

Fate Therapeutics, Inc.
(A Development Stage Company)

Notes to Financial Statements – (Continued)
(Information as of March 31, 2013 and thereafter and for the three months ended March 31, 2012 and 2013 and the period from April 27, 2007 (inception) to March 31, 2013 is unaudited)

consolidated financial statements requires it to make estimates and assumptions that impact the reported amounts of assets, liabilities, revenues and expenses and the disclosure of contingent assets and liabilities in the Company's consolidated financial statements and accompanying notes. The most significant estimates in the Company's consolidated financial statements relate to the valuation of equity awards and clinical trial accruals. Although these estimates are based on the Company's knowledge of current events and actions it may undertake in the future, actual results may ultimately materially differ from these estimates and assumptions.

Principles of Consolidation

The consolidated financial statements include the accounts of the Company and its subsidiaries, Fate Therapeutics (Canada) Inc. ("Fate Canada"), Fate Therapeutics Ltd, incorporated in the United Kingdom, and Destin Therapeutics Inc., incorporated in Canada. To date, the aggregate operations of these subsidiaries have not been significant and all intercompany transactions and balances have been eliminated in consolidation.

Unaudited Interim Financial Information

The accompanying interim consolidated balance sheet as of March 31, 2013 and the consolidated statements of operations and comprehensive loss and cash flows for the three months ended March 31, 2012 and 2013 and the period from April 27, 2007 (inception) to March 31, 2013 and the consolidated statements of convertible preferred stock and stockholders' deficit for the three months ended March 31, 2013 and the related footnote disclosures are unaudited. These unaudited interim financial statements have been prepared in accordance with GAAP. In management's opinion, the unaudited interim financial statements have been prepared on the same basis as the audited financial statements and include all adjustments, which include only normal recurring adjustments, necessary for the fair presentation of the Company's financial position as of March 31, 2013 and its results of operations and comprehensive loss and its cash flows for the three months ended March 31, 2012 and 2013 and the period from April 27, 2007 (inception) to March 31, 2013. The results for the three months ended March 31, 2013 are not necessarily indicative of the results expected for the full fiscal year or any other interim period.

Unaudited Pro Forma Balance Sheet Information

The unaudited pro forma balance sheet information as of March 31, 2013 assumes (i) the conversion of all outstanding shares of convertible preferred stock into 46,992,394 shares of the Company's common stock, (ii) the reclassification of the exchangeable share liability to additional paid-in capital related to the issuance of 2,625,000 shares of common stock upon exchange of outstanding exchangeable shares, and (iii) the reclassification of the preferred stock warrant liability to additional paid-in capital upon completion of the initial public offering ("IPO"), as the warrants become common stock warrants that are not subject to remeasurement. The pro forma balance sheet

Fate Therapeutics, Inc.
(A Development Stage Company)

Notes to Financial Statements – (Continued)
(Information as of March 31, 2013 and thereafter and for the three months ended March 31, 2012 and 2013 and the period from April 27, 2007 (inception) to March 31, 2013 is unaudited)

was prepared as though the completion of the IPO contemplated by this prospectus had occurred on March 31, 2013. Shares of common stock issued in such IPO and any related net proceeds are excluded from the pro forma information.

Segment Reporting

Operating segments are identified as components of an enterprise about which separate discrete financial information is available for evaluation by the chief operating decision-maker in making decisions regarding resource allocation and assessing performance. The Company views its operations and manages its business in one operating segment.

Fair Value of Financial Instruments

The carrying amounts of accounts payable and accrued liabilities are considered to be representative of their respective fair values because of the short-term nature of those instruments. Based on the borrowing rates currently available to the Company for loans with similar terms, which is considered a Level 2 input, the Company believes that the fair value of long-term debt approximates its carrying value.

The accounting guidance defines fair value, establishes a consistent framework for measuring fair value and expands disclosure for each major asset and liability category measured at fair value on either a recurring or nonrecurring basis. Fair value is defined as an exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or liability. As a basis for considering such assumptions, the accounting guidance establishes a three-tier fair value hierarchy, which prioritizes the inputs used in measuring fair value as follows:

Level 1: Observable inputs such as quoted prices in active markets;

Level 2: Inputs, other than the quoted prices in active markets, that are observable either directly or indirectly; and

Level 3: Unobservable inputs in which there is little or no market data, which require the reporting entity to develop its own assumptions

Financial assets measured at fair value on a recurring basis consist of the Company’s cash equivalents. As of December 31, 2011 and 2012 and March 31, 2013, the carrying amount of cash equivalents was $4.3 million, $1.3 million and $1.3 million, respectively, which approximates fair value and was determined based upon Level 1 inputs. Cash equivalents primarily consisted of money market funds. As of December 31, 2011 and 2012 and March 31, 2013, the Company did not hold any Level 2 or Level 3 financial assets that are recorded at fair value on a recurring basis.

Fate Therapeutics, Inc.
(A Development Stage Company)

Notes to Financial Statements – (Continued)
(Information as of March 31, 2013 and thereafter and for the three months ended March 31, 2012 and 2013 and the period from April 27, 2007 (inception) to March 31, 2013 is unaudited)

Financial liabilities that are measured at fair value on a recurring basis include the preferred stock warrant liability and exchangeable shares (Note 2). None of the Company's non-financial assets or liabilities are recorded at fair value on a non-recurring basis. No transfers between levels have occurred during the periods presented.

Liabilities measured at fair value on a recurring basis are as follows (in thousands):

		Fair Value Measurements at Reporting Date Using		
	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
As of March 31, 2013:				
Warrant liability	$ 172	$ -	$ -	$ 172
Exchangeable share liability	656	-	-	656
Total liabilities	$ 828	$ -	$ -	$ 828
As of December 31, 2012:				
Warrant liability	$ 184	$ -	$ -	$ 184
Exchangeable share liability	551	-	-	551
	$ 735	$ -	$ -	$ 735
As of December 31, 2011:				
Warrant liability	$ 221	$ -	$ -	$ 221
Exchangeable share liability	563	-	-	563
	$ 784	$ -	$ -	$ 784

The preferred stock warrant liability was recorded at fair value using the Black-Scholes option pricing model and the exchangeable share liability was recorded at fair value based on the fair value of the underlying common stock.

Fate Therapeutics, Inc.
(A Development Stage Company)

Notes to Financial Statements – (Continued)
(Information as of March 31, 2013 and thereafter and for the three months ended March 31, 2012 and 2013 and the period from April 27, 2007 (inception) to March 31, 2013 is unaudited)

The following assumptions were used in the Black-Scholes option pricing model to determine the fair value of the preferred stock warrant liability:

	As of December 31,		As of March 31,
	2011	2012	2013
Risk-free interest rate	1.9%	1.2%	1.3%
Expected volatility	90.0%	93.5%	86.1%
Remaining contractual term (in years)	9.31	8.31	8.06
Expected dividend yield	0.0%	0.0%	0.0%

The following fair values per share of the Company's underlying convertible preferred stock and common stock were used to determine the fair value of the preferred stock warrant liability and the exchangeable shares (as defined in Note 2):

	As of December 31,		As of March 31,
	2011	2012	2013
Series B convertible preferred stock	$ 2.00	$ 0.92	$ 0.81
Series C convertible preferred stock	$ -	$ 0.99	$ 0.99
Common stock	$ 0.25	$ 0.21	$ 0.25

The fair value of the convertible preferred stock and common stock was determined using a probability weighted expected return model. The key inputs into the model included the probability and timing of expected liquidity event dates, discount rates and the selection of appropriate market comparable transactions and multiples to apply to the Company's various historical and forecasted operational metrics.

The following table provides a reconciliation of all liabilities measured at fair value using Level 3 significant unobservable inputs (in thousands):

	Warrant Liability	Exchangeable Share Liability
Balance at December 31, 2011	$ 221	$ 563
Issuance of exchangeable shares	-	78
Change in fair value	(37)	(90)
Balance at December 31, 2012	184	551
Changes in fair value	(12)	105
Balance at March 31, 2013	$ 172	$ 656

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Cash and Cash Equivalents

Cash and cash equivalents include cash in readily available checking and savings accounts, money market accounts and money market funds. The Company considers all highly liquid investments with an original maturity of three months or less from the date of purchase to be cash equivalents.

Concentration of Credit Risk

Financial instruments, which potentially subject the Company to significant concentration of credit risk, consist primarily of cash and cash equivalents. The Company maintains deposits in federally insured financial institutions in excess of federally insured limits. The Company has not experienced any losses in such accounts and management believes that the Company is not exposed to significant credit risk due to the financial position of the depository institutions in which those deposits are held.

Property and Equipment

Property and equipment are recorded at cost and depreciated using the straight-line method over the estimated useful lives of the assets (generally two to five years) and generally consist of furniture and fixtures, computers, scientific and office equipment. Repairs and maintenance costs are charged to expense as incurred.

Impairment of Long-Lived Assets

Long-lived assets consist primarily of property and equipment. An impairment loss is recorded if and when events and circumstances indicate that assets might be impaired and the undiscounted cash flows estimated to be generated by those assets are less than the carrying amount of those assets. While the Company's current and historical operating losses and negative cash flows are indicators of impairment, management believes that future cash flows to be received support the carrying value of its long-lived assets and, accordingly, has not recognized any impairment losses since inception.

Deferred Rent

Deferred rent consists of the difference between cash payments and the recognition of rent expense on a straight-line basis for the facilities the Company occupies. The Company's lease for its facilities provides for fixed increases in minimum annual rental payments. The total amount of rental payments due over the lease term is being charged to rent expense ratably over the life of the lease.

Preferred Stock Warrant Liability

The Company has issued freestanding warrants to purchase shares of its convertible preferred stock. The fair value of these warrants is classified as a current liability in the accompanying consolidated

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balance sheets since the underlying convertible preferred stock has been classified as temporary equity in the accompanying consolidated balance sheets instead of in stockholders' deficit in accordance with authoritative guidance for the classification and measurement of potentially redeemable securities. Upon certain change in control events that are outside of the Company's control, including liquidation, sale or transfer of control of the Company, holders of the convertible preferred stock can cause its redemption. The warrants are recorded at fair value using the Black-Scholes option pricing model with any changes in fair value being recognized as a component of other income (expense) in the accompanying consolidated statements of operations and comprehensive loss. The warrant liability will continue to be remeasured at fair value until such time as the warrants are no longer outstanding or the underlying securities are no longer redeemable outside the control of the Company.

Revenue Recognition

The Company recognizes revenues when all four of the following criteria are met: (i) persuasive evidence that an agreement exists; (ii) delivery of the products and/or services has occurred; (iii) the selling price is fixed or determinable; and (iv) collectibility is reasonably assured.

Revenue arrangements with multiple elements are analyzed to determine whether the elements can be divided into separate units of accounting or whether the elements must be accounted for as a single unit of accounting. The Company divides the elements into separate units of accounting and applies the applicable revenue recognition criteria to each of the elements, if the delivered elements have value to the customer on a stand-alone basis, if the arrangement includes a general right of return relative to the delivered elements, and if the delivery or performance of the undelivered elements is considered probable and substantially within the Company's control.

For transactions entered into prior to 2011, revenue was allocated to each element based on its relative fair value when objective and reliable evidence of fair value existed for all elements in an arrangement. If an element was sold on a stand-alone basis, the fair value of the element was the price charged for the element. When the Company was unable to establish fair value for delivered elements or when fair value of undelivered elements had not been established, revenue was deferred until all elements were delivered or until fair value could be objectively determined for any undelivered elements.

Beginning in 2011, revenue is allocated to each element at the inception of the arrangement using the relative selling price method that is based on a three-tier hierarchy. The relative selling price method requires that the estimated selling price for each element be based on vendor-specific objective evidence ("VSOE") of fair value, which represents the price charged for each element when it is sold separately or, for an element not yet being sold separately, the price established by management. When VSOE of fair value is not available, third-party evidence ("TPE") of fair value is acceptable, or a best estimate of selling price is used if neither VSOE nor TPE is available. A best estimate of selling price

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should be consistent with the objective of determining the price at which the Company would transact if the element were sold regularly on a stand-alone basis and should also take into account market conditions and company-specific factors. The Company has not entered into or materially modified any multiple element arrangements subsequent to 2010.

Revenue arrangements with multiple elements may include license fees, research and development payments, milestone payments, other contingent payments, and royalties on any product sales derived from collaborations. The Company recognizes nonrefundable license fees with stand-alone value as revenue at the time that the Company has satisfied all performance obligations, and recognizes license fees without stand-alone value as revenue in combination with any undelivered performance obligations. The Company recognizes a research and development payment as revenue over the term of the collaboration agreement as contracted amounts are earned, or reimbursable costs are incurred, under the agreement, where contracted amounts are considered to be earned in relative proportion to the performance required under the applicable agreement. The Company recognizes a milestone payment, which is contingent upon the achievement of a milestone in its entirety, as revenue in the period in which the milestone is achieved only if the milestone meets all criteria to be considered substantive. These criteria include the following: (i) the consideration being earned should be commensurate with either the Company's performance to achieve the milestone or the enhancement of the value of the item delivered as a result of a specific outcome resulting from the Company's performance to achieve the milestone; (ii) the consideration being earned should relate solely to past performance; (iii) the consideration being earned should be reasonable relative to all deliverables and payment terms in the arrangement; and (iv) the milestone should be considered in its entirety and cannot be bifurcated into substantive and nonsubstantive components. Any amounts received pursuant to revenue arrangements with multiple elements prior to satisfying the Company's revenue recognition criteria are recorded as deferred revenue on the Company's consolidated balance sheets.

Revenue from government grants is recorded when reimbursable expenses are incurred under the grant in accordance with the terms of the grant award. The receivable for reimbursable amounts that have not been collected is reflected in prepaid and other current assets.

Research and Development Costs

All research and development costs are expensed as incurred.

Patent Costs

Costs related to filing and pursuing patent applications are recorded as general and administrative expense and expensed as incurred since recoverability of such expenditures is uncertain.

Stock-Based Compensation

Stock-based compensation expense represents the cost of the grant date fair value of employee stock option grants recognized over the requisite service period of the awards (usually the vesting

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period) on a straight-line basis, net of estimated forfeitures. For stock option grants with performance-based milestones, the expense is recorded over the remaining service period after the point when the achievement of the milestone is probable or the performance condition has been achieved. For stock option grants with both performance-based milestones and market conditions, expense is recorded over the derived service period after the point when the achievement of the performance-based milestone is probable or the performance condition has been achieved. The Company estimates the fair value of stock option grants using the Black-Scholes option pricing model, with the exception of option grants with both performance-based milestones and market conditions, which are valued using a lattice based model.

The Company accounts for stock options and restricted stock awards to non-employees using the fair value approach. Stock options and restricted stock awards to non-employees are subject to periodic revaluation over their vesting terms. For stock option grants with performance-based milestones, the expense is recorded over the remaining service period after the point when the performance condition has been achieved.

Income Taxes

The Company accounts for income taxes under the asset and liability method, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been included in the financial statements. Under this method, deferred tax assets and liabilities are determined on the basis of the differences between the financial statements and tax basis of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in income in the period that includes the enactment date.

The Company recognizes net deferred tax assets to the extent that the Company believes these assets are more likely than not to be realized. In making such a determination, management considers all available positive and negative evidence, including future reversals of existing taxable temporary differences, projected future taxable income, tax-planning strategies, and results of recent operations. If management determines that the Company would be able to realize its deferred tax assets in the future in excess of their net recorded amount, management would make an adjustment to the deferred tax asset valuation allowance, which would reduce the provision for income taxes.

The Company records uncertain tax positions on the basis of a two-step process whereby (1) management determines whether it is more likely than not that the tax positions will be sustained on the basis of the technical merits of the position and (2) for those tax positions that meet the more-likely-than-not recognition threshold, management recognizes the largest amount of tax benefit that is more than 50 percent likely to be realized upon ultimate settlement with the related tax authority. The Company recognizes interest and penalties related to unrecognized tax benefits within income tax expense. Any accrued interest and penalties are included within the related tax liability.

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Comprehensive Loss

Comprehensive loss is defined as a change in equity during a period from transactions and other events and circumstances from non-owner sources. Net loss and comprehensive loss were the same for all periods presented.

Net Loss Per Share

Basic net loss per share is calculated by dividing the net loss by the weighted-average number of common shares outstanding for the period, without consideration for common stock equivalents. Excluded from the weighted-average number of shares outstanding are shares which have been issued upon the early exercise of stock options and are subject to future vesting and unvested restricted stock totaling 1,971,142 shares, 1,129,516 shares, 1,322,797 shares and 785,344 shares for the years ended December 31, 2011 and 2012 and the three months ended March 31, 2012 and 2013, respectively. Diluted net loss per share is calculated by dividing the net loss by the weighted-average number of common share equivalents outstanding for the period determined using the treasury-stock method. Dilutive common stock equivalents are comprised of convertible preferred stock, warrants for the purchase of convertible preferred stock, exchangeable shares and options outstanding under the Company's stock option plan. For all periods presented, there is no difference in the number of shares used to calculate basic and diluted shares outstanding due to the Company's net loss position.

Potentially dilutive securities not included in the calculation of diluted net loss per share because to do so would be anti-dilutive are as follows (in common stock equivalent shares):

	As of December 31,		As of March 31,	
	2011	2012	2012	2013
Convertible preferred stock outstanding	35,004,795	46,992,394	35,004,795	46,992,394
Warrants for convertible preferred stock	234,482	234,482	234,482	234,482
Exchangeable shares	2,250,000	2,625,000	2,250,000	2,625,000
Common stock options	1,983,750	9,310,396	4,129,834	9,804,896
	39,473,027	59,162,272	41,619,111	59,656,772

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Unaudited Pro Forma Net Loss Per Share

The following table summarizes our unaudited pro forma net loss per share (in thousands, except share and per share data):

	Year Ended December 31, 2012	Three Months Ended March 31, 2013
		(unaudited)
Numerator		
Net loss	$ (14,239)	$ (3,548)
Change in fair value of warrant liability	(37)	(12)
Change in fair value of exchangeable shares	(90)	105
Pro forma net loss	$ (14,366)	$ (3,455)
Denominator		
Shares used to compute net loss per common share, basic and diluted	7,087,303	7,886,614
Pro forma adjustments to reflect assumed weighted-average effect of conversion of convertible preferred stock	38,947,501	46,992,394
Pro forma adjustments to reflect assumed weighted-average effect of issuance of common stock for exchangeable shares	2,486,680	2,625,000
Shares used to compute pro forma net loss per common share, basic and diluted	48,521,484	57,504,008
Pro forma net loss per common share, basic and diluted	$ (0.30)	$ (0.06)

2. Asset Acquisition of Verio Therapeutics Inc.

Acquisitions are analyzed to determine whether an acquired set of activities and assets represents a business. A business is considered to be an integrated set of activities and assets that is capable of being conducted and managed for the purpose of providing a return in the form of dividends, lower costs, or other economic benefits directly to investors or other owners, members, or participants. A business commonly has three elements: inputs, processes applied to those inputs, and outputs. A set of activities and assets is required to have only the first two of those three elements, which together are or will be used to create outputs, to be considered a business. If an acquired set of activities and assets does not represent a business, the acquired set of activities and assets represents an asset.

On April 7, 2010, the Company acquired Verio Therapeutics Inc. (“Verio”), a development stage company headquartered in Ottawa, Ontario to gain access to its exclusively licensed intellectual

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property. Based on its evaluation of the set of activities and assets of Verio, the Company determined that Verio did not meet the definition of a business. Based on its assessment, the Company determined that Verio was a development stage enterprise without any material inputs; without any processes that create, or have the ability to create, outputs; and without any outputs. As such, the Company accounted for the acquisition of Verio as an asset acquisition and charged the associated consideration paid for the assets to research and development expense.

In connection with the asset acquisition of Verio, the stockholders of Verio received 900,000 non-voting shares of Fate Canada (the "Exchangeable Shares") that were initially exchangeable into 900,000 shares of common stock of the Company, upon certain conditions, and the Company assumed $212,090 of net liabilities of Verio. The purchase price of the Verio asset acquisition is summarized as follows (in thousands):

Net liabilities	$	212
Initial fair value of Exchangeable Shares		234
	$	446

These amounts in the table above represent an estimate of the fair value of purchased in-process technology for projects that, as of the acquisition date, had not yet reached technological feasibility and had no alternative future use.

The number of shares of common stock of the Company to be issued upon exchange of the Exchangeable Shares may increase to a maximum of 5,750,000 upon the validation of certain scientific data and the achievement of certain preclinical, clinical, and commercial milestones. As of December 31, 2011 and 2012 and March 31, 2013, the Exchangeable Shares were exchangeable into 2,250,000 shares, 2,625,000 shares and 2,625,000 shares, respectively, of the Company's common stock, upon certain conditions.

At the date of an increase in the number of Exchangeable Shares due to the achievement of a milestone, the fair value of the additional Exchangeable Shares is charged to research and development expense. At the end of each reporting period, any changes in the fair value of Exchangeable Shares resulting from changes in the fair value of the underlying common stock of the Company are recorded as a component of other income (expense).

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The shares of the Company's common stock issuable upon the exchange of the Exchangeable Shares and the initial fair value of the shares are summarized as follows (in thousands, except share and per share amounts):

	Exchangeable Shares	Fair Value Per Share of Underlying Common Stock	Initial Fair Value of Exchangeable Shares
April 2010	900,000	$ 0.26	$ 234
March 2011	600,000	0.26	156
May 2011	750,000	0.26	195
April 2012	375,000	0.21	78
Total	2,625,000		$ 663

3. Property and Equipment

Property and equipment consist of the following (in thousands):

	December 31,		March 31,
	2011	2012	2013
Furniture and fixtures	$ 216	$ 242	$ 242
Computer and office equipment	115	129	129
Software	103	103	103
Scientific equipment	1,768	2,436	2,443
	2,202	2,910	2,917
Less accumulated depreciation and amortization	(1,160)	(1,749)	(1,906)
	$ 1,042	$ 1,161	$ 1,011

Depreciation expense related to property and equipment amounted to $0.7 million, $0.6 million, $0.1 million, $0.2 million and $2.1 million for the years ended December 31, 2011 and 2012, the three months ended March 31, 2012 and 2013 and the period from April 27, 2007 (inception) to March 31, 2013, respectively. In connection with the renovation of its laboratory space, the Company sold certain equipment that was no longer relevant to its operations. The Company recognized a loss on the disposal of $0.1 million for the year ended December 31, 2011, which is included in general and administrative expense. No gains or losses on the disposal of long-lived assets have been recorded for any period other than the year ended December 31, 2011.

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4. Long-Term Debt, Commitments and Contingencies

Long-Term Debt

Long-term debt and unamortized discount balances are as follows (in thousands):

	December 31,		March 31,
	2011	2012	2013
Long-term debt	$4,000	$ 3,750	$ 3,250
Less debt discount, net of current portion	(76)	(18)	(10)
Long-term debt, net of debt discount	3,924	3,732	3,240
Less current portion of long-term debt	(333)	(2,000)	(2,000)
Long-term debt, net of current portion	$3,591	$ 1,732	$ 1,240
Current portion of long-term debt	$ 333	$ 2,000	$ 2,000
Current portion of debt discount	(85)	(59)	(49)
Current portion of long-term debt, net	$ 248	$ 1,941	$ 1,951

In 2009, the Company entered into a $3.0 million loan and security agreement collateralized by substantially all of the Company's assets, excluding certain intellectual property. The Company drew the full $3.0 million available under the loan and security agreement in 2009 and issued a fully exercisable warrant for 30,000 shares of the Company's Series B convertible preferred stock at an exercise price of $2.00 per share. The warrant expires in January 2019 or earlier upon the acquisition of the Company.

In August 2011, the loan and security agreement was amended to: (i) increase the available credit under the loan and security agreement to $4.0 million, (ii) add an additional payment upon maturity equal to 5% of the maximum loan amount and (iii) repay the remaining $0.6 million of outstanding principal related to the original $3.0 million loan. In August 2011, the Company issued the lender a warrant that provided $0.2 million of warrant coverage for either (i) 100,000 shares of Series B convertible preferred stock at an exercise price of $2.00 per share or (ii) a number of shares and exercise price to be determined based on the pricing of a subsequent qualified financing. In May 2012, as a result of the Company's Series C qualified financing, the warrant became exercisable for 200,000 shares of the Company's Series C convertible preferred stock at an exercise price of $1.00 per share. The warrant expires in August 2021 or earlier upon the acquisition of the Company.

The Company accessed the full $4.0 million of available credit under the amended loan and security agreement by taking a term advance of $2.0 million in August 2011 and a term advance of $2.0 million in December 2011 (together, the "Term Advances"), each of which are scheduled to be

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fully paid by August 2014 and December 2014, respectively. The Term Advances require interest-only payments during the first 12 months from access and equal monthly principal and interest payments during the final 24 months from access. The interest rate on the Term Advances is fixed at 7.0% for their entire 36-month term of the debt. As of March 31, 2013, the aggregate outstanding principal was $3.3 million.

The amendment of the loan and security agreement was determined to be a debt extinguishment and resulted in a loss on extinguishment of debt of approximately $9,000.

The initial fair values of the warrants issued in 2009 and 2011 were $0.1 million and $0.2 million, respectively, and were recorded as a debt discount and amortized to interest expense over the term of the related loans on the effective interest method. The initial fair values of the warrants were estimated using the Black-Scholes option pricing model.

Facility Lease

The Company leases certain office and laboratory space from a stockholder of the Company under a noncancelable operating lease. The lease expires in June 2014 and the Company has an option to extend the lease for two years. The lease is subject to additional charges for common area maintenance and other costs. In connection with the lease, the Company entered into a cash-collateralized irrevocable standby letter of credit in the amount of $0.1 million. Rent expense was $0.7 million, $0.7 million, $0.2 million, $0.2 million and $2.7 million for the years ended December 31, 2011 and 2012 and the three months ended March 31, 2012 and 2013 and the period from April 27, 2007 (inception) to March 31, 2013, respectively.

License Agreements

The Company has entered into exclusive license agreements with certain academic institutions and universities pursuant to which the Company acquired certain intellectual property. Pursuant to each agreement, as consideration for an exclusive license to the intellectual property, the Company paid a license fee, reimbursed the institution for historical patent costs and, in certain instances, issued the institution shares of restricted common stock. Additionally, under each agreement, the institution is generally eligible to receive future consideration including, but not limited to, annual maintenance fees, royalties, milestone payments and sublicensing fees. Each of the license agreements is generally cancelable by the Company, given appropriate prior written notice. Minimum annual payments to maintain these cancelable licenses total an aggregate of approximately $0.3 million.

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In connection with the above license agreements, the Company has issued an aggregate of 545,000 shares of common stock and recorded the aggregate fair value of $44,000 as research and development expense. The share issuances are summarized as follows (in thousands, except share amounts):

	Shares of Common Stock	Fair Value of Common Shares
2008	120,000	$ 1
2009	305,000	17
2010	20,000	5
2012	100,000	21
Total	545,000	$ 44

Commitments

Future minimum payments under the long-term debt and the non-cancelable operating lease as of December 31, 2012 are as follows (in thousands):

	Long-Term Debt	Operating Lease	Total
2013	$ 2,201	$ 883	$ 3,084
2014	2,011	448	2,459
	4,212	$ 1,331	$ 5,543
Less interest	(262)		
Less current portion of debt discount and final payment	(218)		
Less current portion of long-term debt	(2,000)		
Long-term debt, net of current portion	$ 1,732		

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5. Convertible Preferred Stock and Stockholders' Deficit

The authorized, issued and outstanding shares of convertible preferred stock by series as of December 31, 2012 and March 31, 2013 are as follows (in thousands, except share amounts):

	Shares Authorized	Shares Outstanding	Liquidation Preference
Series A	14,609,186	14,609,186	$ 14,609
Series B	12,080,000	12,050,000	24,100
Series B-1	1,500,000	1,500,000	3,000
Series C	29,000,000	16,808,504	16,809
Undesignated	5,010,814	-	-
	62,200,000	44,967,690	$ 58,518

The authorized, issued and outstanding shares of convertible preferred stock by series as of December 31, 2011 are as follows (in thousands, except share amounts)

	Shares Authorized	Shares Outstanding	Liquidation Preference
Series A	14,609,186	14,609,186	$ 14,609
Series B	18,590,814	17,744,180	35,488
	33,200,000	32,353,366	$ 50,097

Description of Securities

Dividends

Each holder of convertible preferred stock is entitled to non-cumulative dividends at an annual rate of 8.0% of the original issue price when and if declared by the Board of Directors. Dividends are paid with the following preference: (i) Series C, (ii) Series B and Series B-1, (iii) Series A and, finally, (iv) common stock. If dividends are paid to the holders of common stock, the holders of convertible preferred stock will participate as if they had converted to common stock. As of March 31, 2013, the Board of Directors of the Company has not declared any dividends.

Liquidation Preferences

Liquidation amounts are paid with the same preference as the dividends above. Once all series of convertible preferred stock have been paid the liquidation preference, plus declared but unpaid dividends, all remaining assets of the Company would be distributed to holders of common stock.

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Conversion

With the exception of the Series B and B-1 convertible preferred stock, all shares of convertible preferred stock are convertible at the option of the holder into one share of common stock, subject to adjustment. Series B and B-1 convertible preferred stock is convertible into 1.1494 shares of common stock for each share of convertible preferred stock. Each share of convertible preferred stock is automatically convertible into common stock, at its then effective conversion price, (i) upon the election of the holders of at least 65% of the outstanding preferred stock voting as a single class, (ii) upon the closing of a firmly underwritten public offering in which the pre-money valuation is at least $200 million and results in gross cash proceeds of at least $50 million.

Voting

The holder of each share of convertible preferred stock is entitled to one vote for each share of common stock into which it would convert.

Convertible Preferred Stock and Related Transactions

The Company sold 1,655,435 shares and 12,953,751 shares of Series A convertible preferred stock at $1.00 per share in 2007 and 2008, respectively.

In 2009, the Company sold 12,050,000 shares of Series B convertible preferred stock at $2.00 per share for $24.1 million in cash and sold 4,194,180 shares of Series B convertible preferred stock in exchange for the conversion of $7.5 million of convertible notes payable and $0.9 million of related accrued interest. The convertible notes payable were originally issued in April 2008 and accrued interest at a rate of 7.5% per annum.

In March 2011, the Company sold Takeda Ventures, Inc. (“Takeda”) 1,500,000 shares of Series B convertible preferred stock at $2.33 per share for $3,500,000 in cash. Also in March 2011, the Company entered into a subordinated note purchase agreement (the “Note Purchase Agreement”) with Takeda. Pursuant to such Note Purchase Agreement, the Company sold and issued Takeda one general, unsecured, subordinated note (the “Subordinated Note”). Such Subordinated Note had a principal amount of $1,000,000 and accrued interest at a rate of 2.0% per annum.

Pursuant to the terms of the Series C financing described below, the 1,500,000 shares of Series B convertible preferred stock purchased by Takeda in March 2011 were converted into 150,000 shares of common stock in July 2012. In May 2012, the Company and Takeda entered into a letter agreement pursuant to which, effective in July 2012, Takeda forfeited all of its rights and forgave all of the obligations of the Company under the Note Purchase Agreement in exchange for the Company converting Takeda’s 150,000 shares of common stock into 1,500,000 shares of Series B-1 convertible

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preferred stock. As a result of the exchange of: (i) $1.0 million of debt and related $25,000 of accrued interest and (ii) 150,000 shares of common stock with a fair value of approximately $32,000 for 1,500,000 shares of Series B-1 convertible preferred stock with a fair value of approximately $1.4 million, the Company recorded a loss on exchange of approximately $0.3 million.

On May 4, 2012, the Company entered into a Series C stock purchase agreement pursuant to which it sold 6,120,369 shares of Series C convertible preferred stock for cash at $1.00 per share in May 2012 and sold 3,124,310 shares of Series C convertible preferred stock for cash at $1.00 per share in July 2012 (together, the “First Closing”). The Company sold an additional 7,563,825 shares of Series C convertible preferred stock for cash at $1.00 per share in a second closing in October 2012.

Pursuant to the Series C stock purchase agreement, certain non-participating stockholders’ holdings of preferred stock were converted into common stock on a basis of one share of common stock for each ten shares of preferred stock. As a result, in addition to Takeda, one investor had its 4,194,180 shares of Series B convertible preferred stock converted into 419,418 shares of common stock upon the First Closing.

Restricted Stock Awards and Stock Options

The Company adopted an Equity Incentive Plan (the Plan) in 2007 under which, as amended, 14,349,974 shares of common stock are reserved for issuance to employees, nonemployee directors and consultants of the Company. The Plan provides for the grant of incentive stock options, nonstatutory stock options, rights to purchase restricted stock, stock appreciation rights, dividend equivalents, stock payments, and restricted stock units to eligible recipients. In connection with the issuance of restricted common stock, the Company maintains a repurchase right where shares of restricted common stock are released from such repurchase right over a period of time of continued service by the recipient. Recipients of incentive stock options shall be eligible to purchase shares of the Company’s common stock at an exercise price equal to no less than the estimated fair value of such stock on the date of grant. Stock options generally vest 25% on the first anniversary of the original vesting date, with the balance vesting monthly over the remaining three years, unless they contain specific performance and/or market-based vesting provisions. The maximum term of stock options granted under the Plan is ten years.

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Notes to Financial Statements – (Continued)
(Information as of March 31, 2013 and thereafter and for the three months ended March 31, 2012 and 2013 and the period from April 27, 2007 (inception) to March 31, 2013 is unaudited)

Stock option activity under the Plan is summarized as follows:

	Number of Options	Weighted-Average Price
Balance at April 27, 2007 (inception)	–	$ –
Granted	494,500	0.01
Canceled	(1,664)	0.01
Balance at December 31, 2008	492,836	0.01
Granted	1,521,935	0.04
Exercised	(1,338,521)	0.02
Balance at December 31, 2009	676,250	0.07
Granted	1,650,000	0.26
Canceled	(73,752)	0.18
Exercised	(140,415)	0.07
Balance at December 31, 2010	2,112,083	0.21
Granted	457,500	0.26
Canceled	(464,639)	0.24
Exercised	(121,194)	0.12
Balance at December 31, 2011	1,983,750	0.22
Granted	7,727,896	0.22
Canceled	(328,751)	0.24
Exercised	(72,499)	0.22
Balance at December 31, 2012	9,310,396	0.22
Granted	494,500	0.21
Balance at March 31, 2013	9,804,896	0.22

Since inception, no stock options have been granted outside the plan.

As of December 31, 2012 and March 31, 2013, the outstanding options included 1,768,008 performance-based options for which the achievement of the performance-based vesting provisions was not determined to be probable. The aggregate grant date fair value of these unvested options at December 31, 2012 and March 31, 2013 was $0.2 million.

As of December 31, 2012 and March 31, 2013, the outstanding options included 1,063,223 options and 1,433,223 options, respectively, with both performance-based milestones and market conditions that were not determined to be probable of achievement. The aggregate grant date fair value of these unvested options at December 31, 2012 and March 31, 2013 was $0.2 million.

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As of December 31, 2012 and March 31, 2013, the unrecognized compensation cost related to outstanding options (excluding those with performance-based and/or market conditions), was $0.8 million and $0.7 million, respectively, and is expected to be recognized as expense over approximately 3.4 years and 3.2 years, respectively.

As of December 31, 2012 and March 31, 2013, there were 33,333 outstanding shares of common stock and 8,125 shares of common stock, respectively, at weighted-average exercise prices of $0.04 per share and $0.08 per share, respectively, that were subject to repurchase since the options to which they relate were unvested.

Information about the Company's outstanding stock options is as follows (in thousands, except share and per share data):

	Number of Shares	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value
March 31, 2013:				
Options outstanding	9,804,896	$ 0.22	8.94	$ 302
Options vested and expected to vest	6,603,665	$ 0.22	9.06	$ 230
Options exercisable	2,365,259	$ 0.21	8.72	$ 106
December 31, 2012:				
Options outstanding	9,310,396	$ 0.22	9.14	$ 51
Options vested and expected to vest	6,479,165	$ 0.22	9.23	$ 51
Options exercisable	2,140,179	$ 0.20	8.74	$ 50

Information about the Company's stock option activity is as follows (in thousands, except share and per share data):

	Years Ended December 31,		Three Months Ended March 31,
	2011	2012	2013
Weighted-average grant date fair value per share of employee option grants	$ 0.19	$ 0.17	$ 0.16
Cash received upon exercise of options	$ 14.00	$ 15.00	$ –

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Restricted stock awards both inside and outside of the Plan are summarized as follows:

	Inside the Plan		Outside the Plan	
	Number of Shares	Weighted-Average Price	Number of Shares	Weighted-Average Price
Balance at April 27, 2007 (inception)	–	$ –	–	$ –
Sale of restricted stock to certain founders	2,868,107	0.006	5,208,334	0.001
Repurchase of restricted stock	–	–	(1,533,333)	0.001
Balance at December 31, 2008 and 2009	2,868,107	0.006	3,675,001	0.001
Repurchase of restricted stock	(31,250)	0.006	–	–
Balance at December 31, 2010	2,836,857	0.006	3,675,001	0.001
Repurchase of restricted stock	(779,456)	0.006	(3,125)	0.001
Balance at December 31, 2011	2,057,401	0.006	3,671,876	0.001
Sale of restricted stock	769,346	0.250	–	–
Balance at December 31, 2012 and March 31, 2013	2,826,747	0.072	3,671,876	0.001

Unvested outstanding restricted stock awards, issued inside the Plan, as of December 31, 2011 and 2012 and March 31, 2013 were 1,166,834, 788,656 and 740,572 shares, respectively. Unvested restricted stock awards as of March 31, 2013 consists of 512,897 shares that vest monthly over a four year period and 227,675 shares that cliff vest in April 2018 or earlier upon the achievement of specified milestones. Unvested outstanding restricted stock awards, issued outside the Plan, as of December 31, 2011 were 41,667 shares. All restricted stock awards outside the Plan were fully vested as of December 31, 2012 and March 31, 2013.

Stock-Based Compensation Expense

The weighted-average assumptions used in the Black-Scholes option pricing model to determine the fair value of the employee stock option grants were as follows:

	Years Ended December 31,		Three Months Ended March 31,	
	2011	2012	2012	2013
Risk-free interest rate	1.1%	1.0%	1.0%	1.1%
Expected volatility	90%	94%	94%	90%
Expected term (in years)	6.08	6.07	6.08	6.06
Expected dividend yield	0.0%	0.0%	0.0%	0.0%

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Risk-free interest rate. The Company bases the risk-free interest rate assumption on observed interest rates appropriate for the expected term of the stock option grants.

Expected dividend yield. The Company bases the expected dividend yield assumption on the fact that it has never paid cash dividends and has no present intention to pay cash dividends.

Expected volatility. The expected volatility assumption is based on volatilities of a peer group of similar companies whose share prices are publicly available. The peer group was developed based on companies in the biotechnology industry.

Expected term. The expected term represents the period of time that options are expected to be outstanding. Because the Company does not have historical exercise behavior, it determines the expected life assumption using the simplified method, which is an average of the contractual term of the option and its vesting period.

The weighted-average assumptions used in the Black-Scholes option pricing model to determine the fair value of the non-employee stock option grants were as follows:

	Years Ended December 31,		Three Months Ended March 31,	
	2011	2012	2012	2013
Risk-free interest rate	1.1%	1.2%	1.2%	1.3%
Expected volatility	90%	94%	94%	90%
Expected term (in years)	6.1	7.5	6.6	8.3
Expected dividend yield	0.0%	0.0%	0.0%	0.0%

The allocation of stock-based compensation for all options granted and restricted stock awards is as follows (in thousands):

	Years Ended December 31,		Three Months Ended March 31,		Period from April 27, 2007 (inception) to March 31, 2013
	2011	2012	2012	2013	
Research and development	$ 156	$ 97	$ 21	$ 38	$ 695
General and administrative	16	58	5	37	149
	$ 172	$ 155	$ 26	$ 75	$ 844

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Common Stock Reserved for Future Issuance

Common stock reserved for future issuance is as follows:

	December 31, 2012	March 31, 2013
Conversion of convertible preferred stock	46,992,394	46,992,394
Preferred stock warrants	234,482	234,482
Common stock options	9,310,396	9,804,896
Awards available under the Plan	1,003,914	509,414
Exchangeable shares	5,750,000	5,750,000
	63,291,186	63,291,186

6. Collaboration Agreement

On September 30, 2010, the Company entered into a worldwide exclusive collaboration and license agreement with Becton, Dickinson and Company ("BD") for the joint development and worldwide commercialization of certain induced pluripotent stem cell ("iPSC") tools and technologies for use in drug discovery and development. In connection with the agreement, the Company received an upfront, nonrefundable license payment and received research funding for the conduct of its development activities. In addition, the Company is eligible to receive certain commercialization milestones and royalties on the sale of iPSC products. The Company does not believe it is probable that it will achieve any future commercialization milestones under the agreement.

License payments under the BD agreement were recorded as deferred revenue upon receipt and are being recognized ratably as revenue over the three year program period as a result of our continuing involvement with the collaboration. Funding received for the Company's research efforts under the program is being recognized as revenue as costs are incurred, which approximates our level of effort over the three year period of the program. The Company recognizes revenue from milestone payments when earned, provided that (i) the milestone event is substantive in that it can only be achieved based in whole or in part on either our performance or on the occurrence of a specific outcome resulting from our performance and its achievability was not reasonably assured at the inception of the agreement, (ii) the Company does not have ongoing performance obligations related to the achievement of the milestone and (iii) it would result in the receipt of additional payments. A milestone payment is considered substantive if all of the following conditions are met: (i) the milestone payment is non-refundable; (ii) achievement of the milestone was not reasonably assured at the inception of the arrangement; (iii) substantive effort is involved to achieve the milestone; and (iv) the amount of the milestone payment appears reasonable in relation to the effort expended, the other milestones in the arrangement and the related risk associated with the achievement of the milestone. Royalties received under the agreement will generally be recognized as revenue upon receipt of the related royalty payment. In connection with the BD agreement for the years ended December 31, 2011

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and 2012 and the three months ended March 31, 2012 and 2013 and the period from April 27, 2007 (inception) to March 31, 2013, the Company recognized $0.8 million, $1.3 million, $0.2 million, $0.2 million and $2.5 million, respectively, as revenue in its consolidated statements of operations.

7. Income Taxes

Significant components of the Company's deferred tax assets are summarized as follows (in thousands):

	December 31,	
	2011	**2012**
Deferred tax assets:		
Section 59e amortization	$ 7,064	$ 9,766
Foreign net operating losses	40	101
Depreciation and amortization	873	787
Other	542	495
Deferred tax assets	8,519	11,149
Valuation allowance	(8,519)	(11,149)
Net deferred tax assets	$ –	$ –

A valuation allowance of $8.5 million and $11.1 million at December 31, 2011 and 2012, respectively, has been established to offset the deferred tax assets, as realization of such assets is uncertain.

At December 31, 2012, the Company had federal, California and Canadian net operating loss ("NOL") carryforwards of approximately $34.6 million, $32.2 million and $0.4 million, respectively, which may be available to offset future taxable income. The federal, California and Canadian NOL carryforwards begin to expire in 2027, 2028 and 2029, respectively, unless previously utilized. At December 31, 2012, the Company had federal and California research and development ("R&D") credit carryforwards of approximately $1.0 million and $1.3 million, respectively. The federal R&D tax credit carryforwards will begin to expire in 2027 unless previously utilized. The California R&D credit carryforwards will carry forward indefinitely.

Utilization of the NOL and R&D credit carryforwards may be subject to a substantial annual limitation due to ownership change limitations that may have occurred or that could occur in the future, as required by Section 382 of the Internal Revenue Code of 1986, as amended (the "Code"), as well as similar state and foreign provisions. These ownership changes may limit the amount of NOL and R&D credit carryforwards that can be utilized annually to offset future taxable income and tax, respectively. In general, an "ownership change" as defined by Section 382 of the Code results from a transaction or series of transactions over a three-year period resulting in an ownership change of more than 50 percentage points of the outstanding stock of a company by certain stockholders. Since the Company's formation,

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the Company has raised capital through the issuance of capital stock on several occasions, which on its own or combined with the purchasing stockholders' subsequent disposition of those shares, may have resulted in such an ownership change, or could result in an ownership change in the future.

The Company has not completed a study to assess whether an ownership change has occurred or whether there have been multiple ownership changes since the Company's formation due to the complexity and cost associated with such a study and the fact that there may be additional such ownership changes in the future. If the Company has experienced an ownership change at any time since its formation, utilization of the NOL or R&D credit carryforwards would be subject to an annual limitation under Section 382 of the Code, which is determined by first multiplying the value of the Company's stock at the time of the ownership change by the applicable long-term, tax-exempt rate, and then could be subject to additional adjustments, as required. Any limitation may result in expiration of a portion of the NOL or R&D credit carryforwards before utilization. Further, until a study is completed and any limitation known, no amounts are being considered as an uncertain tax position or disclosed as an unrecognized tax benefit. Due to the existence of the valuation allowance, future changes in the Company's unrecognized tax benefits will not impact its effective tax rate. Any carryforwards that will expire prior to utilization as a result of such limitations will be removed from deferred tax assets, with a corresponding reduction of the valuation allowance.

The Company files income tax returns in the United States, California and Canada. The Company currently has no years under examination by any jurisdiction, however, the Company is subject to income tax examination by federal, state and Canadian tax authorities for the years beginning in 2007, 2008 and 2009, respectively.

The changes in the Company's unrecognized tax benefits is summarized as follows (in thousands):

Balance at December 31, 2011	$	–
Increase related to prior year positions		11
Balance at December 31, 2012	$	11

The Company does not anticipate that the amount of unrecognized tax benefits as of December 31, 2012 will change within the next twelve months. The Company has not recognized interest or penalties in its consolidated statements of operations and comprehensive loss since inception.

8. Employee Benefits

Effective January 1, 2009, the Company adopted a defined contribution 401(k) plan for employees who are at least 21 years of age. Employees are eligible to participate in the plan beginning on the first day of the calendar quarter following date of hire. Under the terms of the plan, employees may make voluntary contributions as a percent of compensation. No matching contributions have been made by the Company since the adoption of the 401(k) plan.

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Shares

Common Stock

Through and including , 2013 (the 25th day after the date of this prospectus), all dealers effecting transactions in these securities, whether or not participating in this offering, may be required to deliver a prospectus. This 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 fees and expenses, other than underwriting discounts and commissions, payable in connection with the registration of the common stock hereunder. All amounts are estimates except the SEC registration fee.

	Amount to Be Paid
SEC registration fee	$
FINRA filing fee	6,500
The NASDAQ Global Market initial listing fee	*
Printing and mailing	*
Legal fees and expenses	*
Accounting fees and expenses	*
Transfer agent and registrar fees and expenses	*
Miscellaneous	*
Total	$ *

* To be filed by amendment.

Item 14. Indemnification of Directors and Officers.

Section 145 of the Delaware General Corporation Law (the DGCL) authorizes a corporation to indemnify its directors and officers against liabilities arising out of actions, suits and proceedings to which they are made or threatened to be made a party by reason of the fact that they have served or are currently serving as a director or officer to a corporation. The indemnity may cover expenses (including attorneys' fees) judgments, fines and amounts paid in settlement actually and reasonably incurred by the director or officer in connection with any such action, suit or proceeding. Section 145 permits corporations to pay expenses (including attorneys' fees) incurred by directors and officers in advance of the final disposition of such action, suit or proceeding. In addition, Section 145 provides that a corporation has the power to purchase and maintain insurance on behalf of its directors and officers against any liability asserted against them and incurred by them in their capacity as a director or officer, or arising out of their status as such, whether or not the corporation would have the power to indemnify the director or officer against such liability under Section 145.

We have adopted provisions in our certificate of incorporation and bylaws to be in effect at the completion of this offering that limit or eliminate the personal liability of our directors to the fullest extent permitted by the DGCL, as it now exists or may in the future be amended. Consequently, a director will not be personally liable to us or our stockholders for monetary damages or breach of fiduciary duty as a director, except for liability for:

- any breach of the director's duty of loyalty to us or our stockholders;
- any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- any unlawful payments related to dividends or unlawful stock purchases, redemptions or other distributions; or
- any transaction from which the director derived an improper personal benefit.

These limitations of liability do not alter director liability under the federal securities laws and do not affect the availability of equitable remedies such as an injunction or rescission.

In addition, our bylaws provide that:

- we will indemnify our directors, officers and, in the discretion of our board of directors, certain employees to the fullest extent permitted by the DGCL, as it now exists or may in the future be amended; and
- we will advance reasonable expenses, including attorneys' fees, to our directors and, in the discretion of our board of directors, to our officers and certain employees, in connection with legal proceedings relating to their service for or on behalf of us, subject to limited exceptions.

We have entered into indemnification agreements with or have contractual rights to provide indemnification to each of our directors and intend to enter into such agreements with certain of our executive officers. These agreements provide that we will indemnify each of our directors, certain of our executive officers and, at times, their affiliates to the fullest extent permitted by Delaware law. We will advance expenses, including attorneys' fees (but excluding judgments, fines and settlement amounts), to each indemnified director, executive officer or affiliate in connection with any proceeding in which indemnification is available and we will indemnify our directors and officers for any action or proceeding arising out of that person's services as a director or officer brought on behalf of the Company or in furtherance of our rights. Additionally, each of our directors may have certain rights to indemnification, advancement of expenses or insurance provided by their affiliates, which indemnification relates to and might apply to the same proceedings arising out of such director's services as a director referenced herein. Nonetheless, we have agreed in the indemnification agreements that the Company's obligations to those same directors are primary and any obligation of the affiliates of those directors to advance expenses or to provide indemnification for the expenses or liabilities incurred by those directors are secondary.

We also maintain general liability insurance 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, including liabilities under the Securities Act.

The underwriting agreement filed as Exhibit 1.1 to this registration statement provides for indemnification of us and our directors and officers by the underwriters against certain liabilities under the Securities Act and the Exchange Act.

Item 15. Recent Sales of Unregistered Securities.

In the three years preceding the filing of this registration statement, we have issued the following securities that were not registered under the Securities Act:

(a) Issuances of Capital Stock

In December 2010, we issued an aggregate of 10,000 shares of common stock to a university licensor and three individuals in partial consideration for the licensor's execution of a license agreement with us.

In December 2010, we issued 125,000 shares of common stock to an institutional licensor in partial consideration for the licensor's execution of a license agreement with us.

In January 2011, we issued 10,000 shares of common stock to a university licensor in partial consideration for the licensor's execution of a license agreement with us.

In March 2011, we issued 1,500,000 shares of our Series B convertible preferred stock for aggregate consideration of $3.5 million and a convertible promissory note in the principal amount of $1.0 million to an investor. We have filed a Form D to ensure that all securities issued in this transaction fall within the safe harbor provided pursuant to Rule 506 of Regulation D, which is promulgated under the Securities Act.

In August 2011, we issued a warrant to purchase capital stock, which became exercisable for 200,000 shares of our Series C convertible preferred stock in May 2012, to a lender in connection with a debt financing transaction.

In May 2012, we issued an aggregate of 6,120,369 shares of our Series C convertible preferred stock to eight investors for aggregate consideration of approximately $6.1 million. We have filed a Form D to ensure that all securities issued in this transaction fall within the safe harbor provided pursuant to Rule 506 of Regulation D, which is promulgated under the Securities Act.

In July 2012, we issued an aggregate of 3,124,310 shares of our Series C convertible preferred stock to nine investors for aggregate consideration of approximately $3.1 million. We have filed a Form D to ensure that all securities issued in this transaction fall within the safe harbor provided pursuant to Rule 506 of Regulation D, which is promulgated under the Securities Act.

In July 2012, we issued an aggregate of 569,418 shares of common stock to two existing investors upon conversion of 5,694,180 shares of our Series B convertible preferred stock.

In October 2012, we issued 1,500,000 shares of our Series B-1 convertible preferred stock to an existing investor in exchange for 150,000 shares of our common stock and the forfeiture of a convertible promissory note in the original principal amount of $1.0 million.

In October 2012, we issued an aggregate of 7,563,825 shares of our Series C convertible preferred stock to 17 investors for aggregate consideration of approximately $7.6 million. We have filed a Form D to ensure that all securities issued in this transaction fall within the safe harbor provided pursuant to Rule 506 of Regulation D, which is promulgated under the Securities Act.

In December 2012, we issued 100,000 shares of our common stock to a licensor in connection with the achievement of a clinical development milestone.

In May 2013, we issued an aggregate of 50,000 shares of our common stock to a university licensor and two individuals in partial consideration for the licensor's execution of a license agreement with us.

No underwriters were involved in the foregoing sales of securities. Unless otherwise stated, the sales of securities described above were deemed to be exempt from registration pursuant to Section 4(2) of the Securities Act as transactions by an issuer not involving a public offering. All of the purchasers in these transactions represented to us in connection with their purchase that they were acquiring the securities for investment and not distribution, that they could bear the risks of the investment and could hold the securities for an indefinite period of time. Such 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 or an available exemption from such registration. All of the foregoing securities are deemed restricted securities for the purposes of the Securities Act.

(b) Grants and Exercises of Stock Options and Restricted Stock

Since January 1, 2010, we have (i) issued 769,346 shares of restricted common stock, at a purchase price of $0.25 per share, to a director pursuant to the 2007 Plan and (ii) granted stock options to purchase an aggregate of 10,449,896 shares of our common stock, with exercise prices ranging from $0.21 to $0.26 per share, to employees, directors and consultants pursuant to the 2007 Plan. Of these options, 185,728 have been exercised.

The issuances of the securities described above were deemed to be exempt from registration pursuant to Rule 701 promulgated under the Securities Act as transactions pursuant to compensatory benefit plans. The shares of common stock issued upon the exercise of options are deemed to be restricted securities for purposes of the Securities Act.

Item 16. Exhibits and Financial Statement Schedules.

(a) Exhibits:

The exhibits to the registration statement are listed in the Exhibit Index to this registration statement and are incorporated herein by reference.

(b) Financial Statements Schedules:

Schedules have been omitted because the information required to be set forth therein is not applicable or is shown in the financial statements or notes thereto.

Item 17. Undertakings.

Insofar as indemnification for liabilities arising under the Securities Act of 1933, as amended, or the 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.

The Registrant hereby undertakes that:

(a) The Registrant will provide to the underwriter at the closing as specified in the underwriting agreement, certificates in such denominations and registered in such names as required by the underwriter to permit prompt delivery to each purchaser.

(b) For purposes of determining any liability under the Securities Act of 1933, as amended, the information omitted from a form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in the form of prospectus filed by the Registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act of 1933, as amended, shall be deemed to be part of this registration statement as of the time it was declared effective.

(c) For the purpose of determining any liability under the Securities Act of 1933, as amended, 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 on Form S-1 to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of San Diego, State of California, on the day of , 2013.

FATE THERAPEUTICS, INC.

By: _____
Christian Weyer, M.D., M.A.S.
President, Chief Executive Officer and Director

POWER OF ATTORNEY AND SIGNATURES

Each individual whose signature appears below hereby constitutes and appoints each of Christian Weyer and J. Scott Wolchko as such person's true and lawful attorney-in-fact and agent with full power of substitution and resubstitution, for such person in such person's name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement (or any Registration Statement for the same offering that is to be effective upon filing pursuant to Rule 462(b) under the Securities Act of 1933), and to file the same, with all exhibits thereto, and all documents in connection therewith, with the Securities and Exchange Commission granting unto each said attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as such person might or could do in person, hereby ratifying and confirming all that any said attorney-in-fact and agent, or any substitute or substitutes of any of them, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this Registration Statement and Power of Attorney has been signed by the following person in the capacities and on the date indicated.

Name	Title	Date
Christian Weyer, M.D., M.A.S.	President, Chief Executive Officer and Director *(Principal Executive Officer)*	, 2013
J. Scott Wolchko	Chief Financial Officer and Chief Operating Officer *(Principal Financial and Accounting Officer)*	, 2013
William H. Rastetter, Ph.D.	Chairman of the Board and Director	, 2013
John D. Mendlein, Ph.D., J.D.	Vice Chairman of the Board and Director	, 2013
Mark J. Enyedy	Director	, 2013
Amir Nashat, Sc.D.	Director	, 2013

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Name	Title	Date
Robert T. Nelsen	Director	, 2013
Bryan E. Roberts, Ph.D.	Director	, 2013
Carl Weissman	Director	, 2013

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EXHIBIT INDEX

Exhibit No.	Exhibit Index
1.1*	Form of Underwriting Agreement.
3.1	Amended and Restated Certificate of Incorporation of the Registrant, as currently in effect.
3.2*	Form of Amended and Restated Certificate of Incorporation of the Registrant (to be effective upon completion of this offering).
3.3	Bylaws of the Registrant, as currently in effect.
3.4*	Form of Amended and Restated Bylaws of the Registrant (to be effective upon completion of this offering).
4.1*	Specimen Common Stock Certificate.
4.2	Warrant to Purchase Stock issued to Silicon Valley Bank on January 5, 2009.
4.3	First Amendment to Warrant to Purchase Stock dated January 5, 2009 by and between the Registrant and SVB Financial Group, dated August 25, 2011.
4.4	Warrant to Purchase Stock issued to Silicon Valley Bank on August 25, 2011.
5.1*	Opinion of Goodwin Procter LLP.
10.1#	2007 Equity Incentive Plan and forms of agreements thereunder.
10.2#*	2013 Stock Option and Incentive Plan and forms of agreements thereunder.
10.3#	Employment Offer Letter by and between the Registrant and Christian Weyer, dated October 2, 2012.
10.4#	Employment Offer Letter by and between the Registrant and Scott Wolchko, dated September 17, 2007.
10.5#	Amendment to Employment Offer Letter by and between the Registrant and Scott Wolchko, dated November 11, 2008.
10.6#	Employment Offer Letter by and between the Registrant and Pratik S. Multani, dated March 23, 2009.
10.7	Consulting Agreement by and between the Registrant and John D. Mendlein, dated December 31, 2012.
10.8	Director Letter Agreement by and between the Registrant and Mark Enyedy, dated May 24, 2012.
10.9†	Exclusive License Agreement by and between the Registrant and Children’s Medical Center Corporation, dated May 13, 2009.
10.10†	Exclusive License Agreement by and between the Registrant and The Board of Trustees of the Leland Stanford Junior University, dated May 2, 2013.
10.11†	Restated License Agreement by and between The Ottawa Hospital Research Institute and Fate Therapeutics (Canada) Inc. (as successor to Verio Therapeutics, Inc.), effective April 6, 2010.
10.12†	First Amendment to Restated License Agreement by and between The Ottawa Hospital Research Institute and Fate Therapeutics (Canada) Inc. (as successor to Verio Therapeutics, Inc.), effective February 14, 2012.
10.13	Second Amendment to Restated License Agreement by and between The Ottawa Hospital Research Institute and Fate Therapeutics (Canada) Inc. (as successor to Verio Therapeutics, Inc.), effective June 3, 2013.
10.14	Lease Agreement by and between the Registrant and ARE-3535/3565 General Atomics Court, LLC, dated December 3, 2009.

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Exhibit No.	Exhibit Index
10.15	First Amendment to Lease Agreement by and between the Registrant and ARE-3535/3565 General Atomics Court, LLC, dated October 1, 2011.
10.16	Loan and Security Agreement by and between the Registrant and Silicon Valley Bank, dated January 5, 2009.
10.17	Amendment No. 1 to Loan and Security Agreement by and between the Registrant and Silicon Valley Bank, dated May 4, 2010.
10.18	Second Amendment to Loan and Security Agreement by and between the Registrant and Silicon Valley Bank, dated August 25, 2011.
10.19	Amended and Restated Investor Rights Agreement, dated June 18, 2013 by and between the Registrant and the stockholders named therein.
10.20*	Form of Indemnification Agreement.
21.1	Subsidiaries of the Registrant.
23.1*	Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm.
23.2*	Consent of Goodwin Procter LLP (included in Exhibit 5.1).
24.1	Power of Attorney (included in page II-5).

* To be included by amendment.

† Application will be made to the Securities and Exchange Commission for confidential treatment of certain provisions. Omitted material for which confidential treatment is requested will be filed separately with the Securities and Exchange Commission.

# Indicates a management contract or any compensatory plan, contract or arrangement.

EXHIBIT 3.1

FATE THERAPEUTICS, INC.

AMENDED AND RESTATED CERTIFICATE OF INCORPORATION

Fate Therapeutics, Inc., a corporation organized and existing under and by virtue of the Delaware General Corporation Law, hereby certifies as follows:

The name of this corporation is Fate Therapeutics, Inc., and the original Certificate of Incorporation filed under the corporation's original name, Fate, Inc., was filed with the Secretary of State of the State of Delaware on April 27, 2007. An Amended and Restated Certificate of Incorporation was filed with the Secretary of State of the State of Delaware on October 26, 2012.

The Amended and Restated Certificate of Incorporation in the form of Exhibit A attached hereto has been duly adopted in accordance with the provisions of Sections 242, 245, and 228 of the General Corporation Law of the State of Delaware.

The text of this corporation's Certificate of Incorporation as heretofore amended, restated or supplemented is hereby restated and further amended to read in its entirety as set forth in Exhibit A attached hereto.

IN WITNESS WHEREOF, this Amended and Restated Certificate of Incorporation has been signed this 4th day of June, 2013.

FATE THERAPEUTICS, INC.

By: /s/ Christian Weyer
Christian Weyer
President and Chief Executive Officer

EXHIBIT A

AMENDED AND RESTATED CERTIFICATE OF INCORPORATION

OF

FATE THERAPEUTICS, INC.

FIRST

The name of this corporation is Fate Therapeutics, Inc. (the "Company").

SECOND

The address of the Company's registered office in the State of Delaware is 2711 Centerville Road, Suite 400 in the City of Wilmington, County of New Castle, 19808. The name of its registered agent at such address is Corporation Service Company.

THIRD

The purpose of this corporation is to engage in any lawful act or activity for which a corporation may be organized under the General Corporation Law of Delaware.

FOURTH

A. The aggregate number of shares that the Company shall have authority to issue is 162,200,000, divided into 100,000,000 shares of Common Stock each with the par value of $0.001 per share, and 62,200,000 shares of Preferred Stock each with the par value of $0.001 per share. 14,609,186 of the shares of Preferred Stock are designated "Series A Preferred" (the "Series A Preferred"), 12,080,000 shares of Preferred Stock are designated "Series B Preferred" (the "Series B Preferred"), 1,500,000 shares of Preferred Stock are designated "Series B-1 Preferred" (the "Series B-1 Preferred"), and 29,000,000 shares of Preferred Stock are designated "Series C Preferred" (the "Series C Preferred").

B. The terms and provisions of the Preferred Stock are as follows:

1. Dividends.

(a) Treatment of Preferred Stock.

(i) Series C Preferred. The Series C Preferred shall be entitled to receive dividends of $0.08 per share (as adjusted for stock splits, combinations, reorganizations and the like) per annum, out of any assets at the time legally available therefore, when, as and if declared by the Board of Directors, prior and in preference to the Series B Preferred, Series B-1 Preferred, Series A Preferred and Common Stock.

(ii) Series B Preferred and Series B-1 Preferred. After payment of dividends to the Series C Preferred, the Series B Preferred and Series B-1 Preferred, together as a single class on a *pari passu* basis, shall be entitled to receive dividends of $0.16 per share (as adjusted for stock splits, combinations, reorganizations and the like) per annum, out of any assets at the time legally available therefore, when, as and if declared by the Board of Directors, prior and in preference to the Series A Preferred and Common Stock.

(iii) Series A Preferred. After payment of dividends to the Series C Preferred, Series B Preferred and Series B-1 Preferred, the Series A Preferred shall be entitled to receive dividends of $0.08 per share (as adjusted for stock splits, combinations, reorganizations and the like) per annum, out of any assets at the time legally available therefore, when, as and if declared by the Board of Directors, prior and in preference to the Common Stock.

(iv) No dividends other than those payable solely in Common Stock shall be declared or paid on any Common Stock or any other capital stock unless and until (i) the aforementioned dividends are paid on each outstanding share of Preferred Stock, (ii) a dividend is paid with respect to all outstanding shares of Preferred Stock in an amount equal to or greater than the aggregate amount of dividends which would be payable on each share of Preferred Stock if, immediately prior to such dividend payment on Common Stock, it had been converted into Common Stock, (iii) the holders of Series C Preferred have received full payment of the Series C Liquidation Preference specified in Section 2 pursuant to the terms thereof, (iv) the holders of the Series B Preferred and Series B-1 Preferred have received full payment of the Series B Liquidation Preference specified in Section 2 pursuant to the terms thereof and (v) the holders of the Series A Preferred have received full payment of the Series A Liquidation Preference specified in Section 2 pursuant to the terms thereof. The Board of Directors is under no obligation to declare dividends, no rights shall accrue to the holders of Preferred Stock if dividends are not declared, and any dividends declared shall be noncumulative. The Company shall make no Distribution (as defined below) to the holders of shares of Common Stock except in accordance with this Section 1(a).

(b) Distribution. "Distribution" means the transfer of cash or property without consideration, whether by way of dividend or otherwise, or the purchase of shares of the Company (other than in connection with the repurchase of shares of Common Stock issued to or held by employees, consultants, officers and directors at a price not greater than the amount paid by such persons for such shares upon termination of their employment or services pursuant to agreements providing for the right of said repurchase) for cash or property.

2. Liquidation Rights.

(a) Liquidation Preference. In the event of any Liquidation (as defined below), either voluntary or involuntary, distributions shall be made in the following manner:

(i) The holders of the Series C Preferred shall be entitled to receive, out of the assets of the Company, the Series C Liquidation Preference specified for each share of Series C Preferred then held by them before any payment shall be made or any assets distributed to the holders of Series B Preferred, Series B-1 Preferred, Series A Preferred or Common Stock. "Series C Liquidation Preference" shall mean, with respect to shares of Series C Preferred, $1.00 per share (as adjusted for stock splits, combinations, reorganizations and the like) plus declared but unpaid dividends on such share. If, upon the Liquidation, the assets to be distributed among the holders of the Series C Preferred are insufficient to permit the payment to such holders of the full Series C Liquidation Preference for their shares, then the entire assets of the Company legally available for distribution shall be distributed with equal priority and pro rata among the holders of the Series C Preferred.

(ii) After payment to the holders of Series C Preferred of the full preferential amounts specified in Section 2(a)(i) above, the holders of the Series B Preferred and Series B-1 Preferred, together as a single class on a *pari passu* basis, shall be entitled to receive, out of the assets of the Company, the Series B Liquidation Preference specified for each share of Series B Preferred and Series B-1 Preferred then held by them before any payment shall be made or any assets distributed to the holders of Series A Preferred or Common Stock. "Series B Liquidation Preference" shall mean, with respect to shares of Series B Preferred and Series B-1 Preferred, $2.00 per share (as adjusted for stock splits, combinations, reorganizations and the like) plus declared but unpaid dividends on such share. If, upon the Liquidation, and after payment to the holders of Series C Preferred of the full preferential amount specified in Section 2(a)(i) above, the remaining assets of the Company to be distributed among the holders of the Series B Preferred and Series B-1 Preferred are insufficient to permit the payment to such holders of the full Series B Liquidation Preference for their shares, then such remaining assets of the Company shall be distributed with equal priority and pro rata among the holders of the Series B Preferred and Series B-1 Preferred.

(iii) After payment to the holders of Series C Preferred, Series B Preferred and Series B-1 Preferred of the full preferential amounts specified in Sections 2(a)(i) and (ii) above, the holders of the Series A Preferred shall be entitled to receive, out of the assets of the Company, the Series A Liquidation Preference specified for each share of Series A Preferred then held by them before any payment shall be made or any assets distributed to the holders of Common Stock. "Series A Liquidation Preference" shall mean, with respect to shares of Series A Preferred, $1.00 per share (as adjusted for stock splits, combinations, reorganizations and the like) plus declared but unpaid dividends on such share. If, upon the Liquidation and after the payment to the holders of Series C Preferred, Series B Preferred and Series B-1 Preferred of the full preferential amounts specified in Sections 2(a)(i) and (ii) above, the remaining assets of the Company to be distributed among the holders of the Series A Preferred are insufficient to permit the payment to such holders of the full Series A Liquidation Preference for their shares, then such remaining assets of the Company shall be distributed with equal priority and pro rata among the holders of the Series A Preferred.

(b) Remaining Assets. After the payment to the holders of Series C Preferred, Series B Preferred, Series B-1 Preferred and Series A Preferred of the full preferential amounts specified above, any remaining assets of the Company shall be distributed with equal priority and pro rata among the holders of the Company's Common Stock.

(c) Liquidation. A "Liquidation" shall be deemed to be occasioned by, or to include, (i) the liquidation, dissolution or winding up of the Company; (ii) the acquisition of the Company by means of any transaction or series of related transactions (including, without limitation, any reorganization, merger, share exchange or consolidation) provided that the applicable transaction shall not be deemed a Liquidation unless the Company's stockholders constituted immediately prior to such transaction hold less than 50% of the voting power of the surviving or acquiring entity; or (iii) the sale, conveyance or other disposal of all or substantially all of the property or business of the Company, *provided however*, that a transaction or series of transactions described in clause (ii) or (iii) of this Section 2(c) shall not be deemed to be a Liquidation for purposes of the liquidation rights specified in this Section 2 if the holders of at least seventy-five percent (75%) of the then outstanding shares of Preferred Stock, voting together as a single class on an as-converted to Common Stock basis, so elect. In the event of a deemed "Liquidation" pursuant to clause (iii) in this Section 2(c) above, if the Company does not effect a dissolution of the Company under the Delaware General Corporation Law within forty-five (45) days after such deemed Liquidation, then (A) the Company shall deliver a written notice to each holder of Preferred Stock no later than the forty-fifth (45th) day after the deemed Liquidation advising such holders of their right (and the requirements to be met to secure such right) pursuant to the terms of the following clause (B) to require the redemption of such shares of Preferred Stock, and (B) if the holders of at least a majority of the then outstanding shares of Preferred Stock, voting together as a single class on an as-converted to Common Stock basis, so request in a written instrument delivered to the Company not later than sixty (60) days after such deemed Liquidation, the Company shall use the consideration received by the Company for such deemed Liquidation (net of any liabilities associated with the assets sold or technology licensed, as determined in good faith by the Board of Directors of the Company), to the extent legally available therefor (the "Net Proceeds"), to redeem, on the seventy-fifth (75th) day after such deemed Liquidation (the "Liquidation Redemption Date"), all outstanding shares of Preferred Stock at a price per share equal to the Series C Liquidation Preference, Series B Liquidation Preference or Series A Liquidation Preference, as applicable. In the event of a redemption pursuant to the preceding sentence, if the Net Proceeds are not sufficient to redeem all outstanding shares of Preferred Stock, the Company shall first redeem a pro rata portion of each holder's shares of Series C Preferred and, thereafter, if any Net Proceeds remain available for distribution, the Company shall redeem a pro rata portion of each holder's shares of Series B Preferred and Series B-1 Preferred taken together as a single class, and, thereafter, if any Net Proceeds remain available for distribution, the Company shall redeem a pro rata portion of such holder's shares of Series A Preferred. Prior to the distribution or redemption provided for in this Section 2(c), the Company shall not expend or dissipate the consideration received for such deemed Liquidation, except to discharge expenses incurred in the ordinary course of business.

(d) Greater of Treatment. Notwithstanding Sections 2(a) and 2(b) above, upon a Liquidation:

(i) The holders of Series C Preferred shall receive at the closing (and at each date after the closing on which additional amounts (such as earnout payments, escrow amounts or other contingent payments) are paid to stockholders of the Company as a result of the event) in cash, securities or other property an amount equal to the greater of: (x) the amount specified in Section 2(a)(i) above, or (y) the amount that the holders of Series C Preferred would have been entitled to receive had they converted their shares of Series C Preferred into Common Stock immediately prior to such event at the then effective Series C Conversion Price.

(ii) After payment to the holders of Series C Preferred of the full amounts specified in Section 2(d)(i), the holders of Series B Preferred and Series B-1 Preferred shall receive at the closing (and at each date after the closing on which additional amounts (such as earnout payments, escrow amounts or other contingent payments) are paid to stockholders of the Company as a result of the event) in cash, securities or other property an amount equal to the greater of: (x) the amount specified in Section 2(a)(ii) above, or (y) the amount that the holders of Series B Preferred and Series B-1 Preferred would have been entitled to receive had they converted their shares of Series B Preferred or Series B-1 Preferred, as applicable, into Common Stock immediately prior to such event at the then effective Series B Conversion Price.

(iii) After payment to the holders of Series C Preferred, Series B Preferred and Series B-1 Preferred of the full amounts specified in Sections 2(d)(i) and (ii), the holders of Series A Preferred shall receive at the closing (and at each date after the closing on which additional amounts (such as earnout payments, escrow amounts or other contingent payments) are paid to stockholders of the Company as a result of the event) in cash, securities or other property an amount equal to the greater of: (x) the amount specified in Section 2(a)(iii) above, or (y) the amount that the holders of Series A Preferred would have been entitled to receive had they converted their shares of Series A Preferred into Common Stock immediately prior to such event at the then effective Series A Conversion Price.

(e) Shares not Treated as Both Preferred Stock and Common Stock in any Distribution. Shares of Preferred Stock shall not be entitled to be converted into shares of Common Stock in order to participate in any distribution, or series of distributions, as shares of Common Stock, without first foregoing participation in the distribution, or series of distributions, as shares of Preferred Stock.

3. Conversion. The Preferred Stock shall have conversion rights as follows:

(a) Right to Convert.

(i) Each share of Series C Preferred shall be convertible, at the option of the holder thereof, at any time after the date of issuance of such share at the office of the Company or any transfer agent for the Series C Preferred; provided, however, that in no event shall such optional conversion right be exercisable until the earlier of: (x) such date as may be determined by the Board of Directors of the Company and (y) September 30, 2013 (such earlier of the dates referred to in clauses (x) and (y), the "Conversion Reinstatement Date"). Each share of Series C Preferred shall be convertible into that number of fully-paid and nonassessable shares of Common Stock that is equal to $1.00 divided by the Series C Conversion Price (as hereinafter defined). The "Series C Conversion Price" shall initially be $1.00 and shall be subject to adjustment as provided herein.

(ii) Each share of Series B Preferred and Series B-1 Preferred shall be convertible, at the option of the holder thereof, at any time after the date of issuance of such share at the office of the Company or any transfer agent for the Series B Preferred and Series B-1 Preferred; provided, however, that in no event shall such optional conversion right be exercisable until the Conversion Reinstatement Date. Each share of Series B Preferred and Series B-1 Preferred shall be convertible into that number of fully-paid and nonassessable shares of Common Stock that is equal to $2.00 divided by the Series B Conversion Price (as hereinafter defined). The "Series B Conversion Price" shall initially be $1.74 and shall be subject to adjustment as provided herein.

(iii) Each share of Series A Preferred shall be convertible, at the option of the holder thereof, at any time after the date of issuance of such share at the office of the Company or any transfer agent for the Series A Preferred; provided, however, that in no event shall such optional conversion right be exercisable until the Conversion Reinstatement Date. Each share of Series A Preferred shall be convertible into that number of fully-paid and nonassessable shares of Common Stock that is equal to $1.00 divided by the Series A Conversion Price (as hereinafter defined). The "Series A Conversion Price" shall initially be $1.00 and shall be subject to adjustment as provided herein. The Series C Conversion Price, the Series B Conversion Price and the Series A Conversion Price are collectively referred to herein as the "Conversion Price".

(b) Automatic Conversion. Each share of Preferred Stock shall automatically be converted into shares of Common Stock at the then effective Conversion Price, immediately upon (1) the affirmative vote of more than 65% of the outstanding shares of Preferred Stock (voting together as a single class on an as-converted to Common Stock basis) or (2) the consummation of a firmly underwritten public offering pursuant to the Securities Act of 1933, as amended (the "Securities Act"), on Form S-1 (as defined in the Securities Act) or any successor form, provided, however, that (i) the per share price to the public implies a Pre-Money Valuation, as defined below, of more than $200,000,000 and (ii) the aggregate gross proceeds to the Company are not less than $50,000,000 after deduction of underwriters discounts and commissions (a "Qualified IPO"). For purposes hereof, "Pre-Money Valuation" shall be the product of (i) the initial per share offering price to the public, before giving effect to underwriting discounts and commissions and other expenses and (ii) the number of shares of Common Stock outstanding immediately prior to the closing of such offering, assuming the exercise of all outstanding options, warrants and other Convertible Securities (as defined below) and the conversion of all shares of Preferred Stock into Common Stock pursuant to this Section 3.

(c) [Reserved].

(d) Mechanics of Conversion. No fractional shares of Common Stock shall be issued upon conversion of Preferred Stock. In lieu of any fractional shares to which the holder would otherwise be entitled, the Company shall pay the fair market value cash equivalent of such fractional share as determined by the Board of Directors of the Company. For such purpose, all shares of Preferred Stock held by each holder shall be aggregated, and any resulting fractional share of Common Stock shall be paid in cash. Before any holder of Preferred Stock shall be entitled to convert the same into full shares of Common Stock, and to receive certificates therefor, such holder shall surrender the Preferred Stock certificate or certificates, duly endorsed, at the office of the Company or of any transfer agent for the Preferred Stock, and shall give written notice to the Company at such office that such holder elects to convert such shares; *provided, however,* that in the event of an automatic conversion pursuant to paragraph 3(b) above, the outstanding shares of Preferred Stock shall be converted automatically without any further action by the holders of such shares and whether or not the certificates representing such shares are surrendered to the Company or its transfer agent; *provided further, however*, that the Company shall not be obligated to issue certificates evidencing the shares of Common Stock issuable upon such automatic conversion unless either the certificates evidencing such shares of Preferred Stock are delivered to the Company or its transfer agent as provided above, or the holder notifies the Company or its transfer agent that such certificates have been lost, stolen or destroyed and executes an agreement satisfactory to the Company (but shall not be required to provide a bond) to indemnify the Company from any loss incurred by it in connection with such certificates.

The Company shall, as soon as practicable after delivery of the Preferred Stock certificates, issue and deliver at such office to such holder of Preferred Stock, a certificate or certificates for the number of shares of Common Stock to which he shall be entitled and a check payable to the holder in the amount of any cash amounts payable as the result of a conversion into fractional shares of Common Stock, plus any declared but unpaid dividends on the converted shares of Preferred Stock. Such conversion shall be deemed to have been made immediately prior to the close of business on the date of such surrender of the shares of Preferred Stock to be converted, and the person or persons entitled to receive the shares of Common Stock issuable upon such conversion shall be treated for all purposes as the record holder or holders of such shares of Common Stock on such date; provided, however, that if the conversion is in connection with an underwritten offer of securities registered pursuant to the Securities Act, the conversion may, at the option of any holder tendering Preferred Stock for conversion, be conditioned upon the closing of the sale of securities pursuant to such offering, in which event the person(s) entitled to receive the Common Stock issuable upon such conversion of the Preferred Stock shall not be deemed to have converted such Preferred Stock until immediately prior to the closing of the sale of such securities.

(e) Adjustments to Conversion Price.

(i) Adjustments for Subdivisions or Combinations of Common. If at any time or from time to time on or after the filing of this Amended and Restated Certificate of Incorporation (the "Effective Date"), the outstanding shares of Common Stock shall be subdivided (by stock split, stock dividend or otherwise), into a greater number of shares of Common Stock without a corresponding subdivision of the Series C Preferred, Series B Preferred, Series B-1 Preferred and/or Series A Preferred, the Series C Conversion Price, Series B Conversion Price and/or the Series A Conversion Price, as applicable, in effect immediately prior to such subdivision shall, concurrently with the effectiveness of such subdivision, be proportionately decreased. If at any time or from time to time on or after the Effective Date, if the outstanding shares of Common Stock shall be combined (by reclassification or otherwise) into a lesser number of shares of Common Stock without a corresponding combination of the Series C Preferred, Series B Preferred, Series B-1 Preferred and/or Series A Preferred, the Series C Conversion Price, Series B Conversion Price and/or the Series A Conversion Price, as applicable, in effect immediately prior to such combination shall, concurrently with the effectiveness of such combination, be proportionately increased.

(ii) Adjustments for Reclassification, Exchange and Substitution. If at any time or from time to time on or after the Effective Date, the Common Stock issuable upon conversion of the Series C Preferred, Series B Preferred, Series B-1 Preferred and/or Series A Preferred shall be changed into the same or a different number of shares of any other class or classes of securities, whether by capital reorganization, recapitalization, reclassification or other event (other than a subdivision or combination of shares pursuant to Section 3(e)(i) above), concurrently with the effectiveness of such capital reorganization, recapitalization, reclassification or other event, the Series C Preferred, Series B Preferred, Series B-1 Preferred and/or Series A Preferred, as applicable, shall be convertible into, in lieu of the number of shares of Common Stock which the holders would otherwise have been entitled to receive, a number of shares of such other class or classes of securities equivalent to the number of such shares or securities that would have been received by the holder of a number of shares of Common Stock issuable upon conversion of the Series C Preferred, Series B Preferred, Series B-1 Preferred or Series A Preferred, as applicable, immediately prior to such capital reorganization, recapitalization, reclassification or other event. In any such case, appropriate adjustment shall be made in the application of the provisions of this Section 3 with respect to the rights of the holders of Series C Preferred, Series B Preferred, Series B-1 Preferred and/or Series A Preferred after the capital reorganization, recapitalization, reclassification or other event to the end that the provisions of this Section 3 (including adjustment of the Series C Conversion Price, Series B Conversion Price and/or Series A Conversion Price then in effect and the number and type of shares or other securities issuable upon conversion of the Series C Preferred, Series B Preferred, Series B-1 Preferred and/or Series A Preferred) shall be applicable after that event and be as nearly equivalent as practicable.

(iii) Adjustments for Dilutive Issuances.

(A) After the Effective Date, if the Company shall issue or sell any shares of Common Stock (as actually issued or, pursuant to paragraph (C) below, deemed to be issued) for a consideration per share less than the applicable Series C

Conversion Price, Series B Conversion Price and/or Series A Conversion Price in effect immediately prior to such issue or sale, then immediately upon such issue or sale the Series C Conversion Price, Series B Conversion Price and/or Series A Conversion Price, as applicable, shall be reduced to a price (calculated to the nearest cent) determined by multiplying such prior Series C Conversion Price, Series B Conversion Price and/or Series A Conversion Price, as applicable, by a fraction, the numerator of which shall be the number of shares of "Calculated Securities" (defined below) outstanding immediately prior to such issue or sale plus the number of shares of Common Stock which the aggregate consideration received by the Company for the total number of shares of Common Stock so issued or sold would purchase at such prior Series C Conversion Price, Series B Conversion Price or Series A Conversion Price, as applicable, and the denominator of which shall be the number of shares of Calculated Securities outstanding immediately prior to such issue or sale plus the number of shares of Common Stock so issued or sold. "Calculated Securities" means (i) all shares of Common Stock actually outstanding; (ii) all shares of Common Stock issuable upon conversion of the then outstanding Preferred Stock (without giving effect to any adjustments to the conversion price of any series of Preferred Stock as a result of such issuance); and (iii) and all shares of Common Stock issuable upon exercise and/or conversion of outstanding options, warrants or other rights for the purchase of shares of capital stock of the Company.

(B) For the purposes of paragraph (A) above, none of the following issuances shall be considered the issuance or sale of Common Stock:

(i) The issuance of Common Stock upon the conversion of any Convertible Securities outstanding as of the Effective Date. "Convertible Securities" shall mean any bonds, debentures, notes or other evidences of indebtedness, and any warrants, shares or any other securities convertible into, exercisable for, or exchangeable for Common Stock, including the Series C Preferred, Series B Preferred, Series B-1 Preferred, and Series A Preferred.

(ii) The issuance of shares of Common Stock (or options to purchase shares of Common Stock) to employees, directors or consultants of the Company under equity incentive plans, programs or agreements approved by the Board of Directors of the Company (not including the reissuance of shares repurchased by the Company from employees or consultants of the Company), which approval shall include a majority of the directors elected exclusively by holders of the Series B Preferred and Series B-1 Preferred or Series A Preferred.

(iii) The issuance of shares of Common Stock or Convertible Securities to lenders, financial institutions, equipment lessors, or real estate lessors to the Company in connection with a bona fide borrowing or leasing transaction approved by the Company's Board of Directors, which approval shall include a majority of the directors elected exclusively by holders of the Series B Preferred and Series B-1 Preferred or Series A Preferred.

(iv) The issuance of Common Stock or Convertible Securities pursuant to (i) the acquisition of another business by the Company by merger, purchase of substantially all of the assets or shares, or other reorganization whereby the

Company or its shareholders own not less than a majority of the voting power of the surviving or successor business or (ii) the acquisition of technology or other intellectual property by outright purchase or exclusive license, in each case, provided that such transaction is approved by the Company's Board of Directors, which approval shall include a majority of the directors elected exclusively by holders of the Series B Preferred and Series B-1 Preferred or Series A Preferred.

(v) The issuance of Common Stock in connection with a Qualified IPO.

(vi) The issuance of Common Stock or Convertible Securities in connection with strategic partnership transactions involving corporate partners that are primarily for purposes other than raising capital, approved by the Company's Board of Directors, which approval shall include a majority of the directors elected exclusively by holders of the Series B Preferred and Series B-1 Preferred or Series A Preferred.

(vii) The issuance of shares of Common Stock pursuant to stock splits, stock dividends or similar transactions that result in an adjustment described in Sections 3(e)(i) or (ii).

(viii) The issuance of securities with the affirmative consent of each of (1) at least a majority of the then outstanding Series A Preferred, voting together as a single, separate class, (2) at least a majority of the then outstanding Series B Preferred and Series B-1 Preferred, voting together as a single, separate class and (3) at least a majority of the then outstanding Series C Preferred, voting together as a single, separate class.

(ix) The issuance of shares of Common Stock or Convertible Securities to holders of exchangeable shares in the capital of Fate Therapeutics (Canada) Inc. ("Fate Canada Exchangeable Shares") in connection with the redemption or exchange of the Fate Canada Exchangeable Shares pursuant to the Articles of Incorporation of Fate Therapeutics (Canada) Inc. ("Fate Canada") and/or the Exchange and Support Agreement, dated April 13, 2010, by and among the Company, Fate Canada and the holders of Fate Canada Exchangeable Shares (as the same may be amended, restated or modified from time to time).

(C) For the purposes of paragraph (A) above, the following subparagraphs 1 to 3, inclusive, shall also be applicable:

(1) In case at any time the Company shall grant any rights to subscribe for, or any rights or options to purchase, Convertible Securities, whether or not such rights or options or the right to convert or exchange any such Convertible Securities are immediately exercisable, and the price per share for which Common Stock is issuable upon the exercise of such rights or options or upon conversion or exchange of such Convertible Securities (determined by dividing (x) the total amount, if any, received or receivable by the Company as consideration for the granting of such rights or options, plus the minimum aggregate amount of additional consideration payable to the Company upon the exercise of such rights or options, plus, in the case of any such rights or options which relate to such Convertible Securities, the minimum aggregate amount of additional consideration, if any,

payable upon the issue or sale of such Convertible Securities and upon the conversion or exchange thereof, by (y) the total maximum number of shares of Common Stock issuable upon the exercise of such rights or options or upon the conversion or exchange of all such Convertible Securities issuable upon the exercise of such rights or options) shall be less than the Series C Conversion Price, Series B Conversion Price and/or Series A Conversion Price, as applicable, in effect immediately prior to the time of the granting of such rights or options, then the total maximum number of shares of Common Stock issuable upon the exercise of such rights or options or upon conversion or exchange of the total maximum amount of such Convertible Securities issuable upon the exercise of such rights or options shall (as of the date of granting of such rights or options) be deemed to be outstanding and to have been issued for such price per share.

(2) In case at any time the Company shall issue or sell any Convertible Securities, whether or not the rights to exchange or convert thereunder are immediately exercisable, and the price per share for which Common Stock is issuable upon such conversion or exchange (determined by dividing (x) the total amount received or receivable by the Company as consideration for the issue or sale of such Convertible Securities, plus the minimum aggregate amount of additional consideration, if any, payable to the Company upon the conversion or exchange thereof, by (y) the total maximum number of shares of Common Stock issuable upon the conversion or exchange of all such Convertible Securities) shall be less than the Series C Conversion Price, Series B Conversion Price and/or Series A Conversion Price, as applicable, in effect immediately prior to the time of such issue or sale, then the total maximum number of shares of Common Stock issuable upon conversion or exchange of such Convertible Securities shall (as of the date of the issue or sale of such Convertible Securities) be deemed to be outstanding and to have been issued for such price per share, provided that if any such issue or sale of such Convertible Securities is made upon exercise of any rights to subscribe for or to purchase or any option to purchase any such Convertible Securities for which adjustments of the conversion price have been or are to be made pursuant to other provisions of this paragraph (C), no further adjustment of the conversion price shall be made by reason of such issue or sale.

(3) In case at any time any shares of Common Stock or Convertible Securities or any rights or options to purchase any such Common Stock, or Convertible Securities shall be issued or sold for cash, the consideration received therefor shall be deemed to be the amount received by the Company therefor. In case any shares of Common Stock or Convertible Securities or any rights or options to purchase any such Common Stock or Convertible Securities shall be issued or sold for a consideration other than cash, the amount of the consideration other than cash received by the Company shall be deemed to be the fair value of such consideration as determined by the Board of Directors. In case any shares of Common Stock or Convertible Securities or any rights or options to purchase any such Common Stock or Convertible Securities shall be issued in connection with any merger of another corporation into the Company, the amount of consideration therefore shall be deemed to be the fair value of the assets of such merged corporation as determined by the Board of Directors after deducting therefrom all cash and other consideration (if any) paid by the Company in connection with such merger.

(f) No Impairment. The Company will not, by amendment of its Certificate of Incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms to be observed or performed hereunder by the Company, but will at all times in good faith assist in carrying out of all the provisions of this Section 3 and in the taking of all such action as may be necessary or appropriate in order to protect the conversion rights of the holders of Preferred Stock against impairment.

(g) Certificate of Adjustments. Upon the occurrence of each adjustment of the Series C Conversion Price, Series B Conversion Price and/or Series A Conversion Price pursuant to this Section 3, the Company at its expense shall promptly compute such adjustment and furnish to each holder of Series C Preferred, Series B Preferred, Series B-1 Preferred and/or Series A Preferred, as applicable, a certificate setting forth such adjustment and showing in detail the facts upon which such adjustment is based. The Company shall, upon the written request at any time of any holder of Series C Preferred, Series B Preferred, Series B-1 Preferred and/or Series A Preferred, furnish to such holder a like certificate setting forth (i) any and all adjustments made to the Series C Preferred Conversion Price, Series B Preferred Conversion Price and/or Series A Preferred Conversion Price, as applicable, since the Effective Date, (ii) the Series C Conversion Price, Series B Conversion Price and/or Series A Conversion Price at the time in effect, and (iii) the number of shares of Common Stock and the amount, if any, of other property which at the time would be received upon the conversion of Series C Preferred, Series B Preferred, Series B-1 Preferred and/or Series A Preferred.

(h) Notices of Record Date. In the event that the Company shall propose at any time (i) to declare any dividend or Distribution; (ii) to offer for subscription to the holders of any class or series of its stock any additional shares of stock or other rights; (iii) to effect any reclassification or recapitalization; or (iv) to effect a Liquidation; then, in connection with each such event, the Company shall send to the holders of Preferred Stock at least 20 days' prior written notice of the date on which a record shall be taken for such dividend, Distribution or subscription rights (and specifying the date on which the holders of stock shall be entitled thereto) or for determining rights to vote in respect of the matters referred to in clauses (iii) and (iv) above. Notwithstanding the provisions of this Section 3(h), any requirement to deliver prior written notice of events pursuant to this Section 3(h) may be waived by holders of a majority of the then outstanding shares of Preferred Stock (determined on an as-converted to Common Stock basis).

(i) Reservation of Stock Issuable Upon Conversion. The Company shall at all times reserve and keep available out of its authorized but unissued shares of Common Stock, solely for the purpose of effecting the conversion of the shares of Preferred Stock, such number of its shares of Common Stock as shall from time to time be sufficient to effect the conversion of all then outstanding shares of 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 Preferred Stock, the Company will take such corporate action as may, in the opinion of its counsel, be necessary to increase its authorized but unissued shares of Common Stock to such number of shares as shall be sufficient for such purpose.

4. Special Mandatory Conversion.

(a) Trigger Event. In the event that any holder of at least 750,000 shares of Preferred Stock (as adjusted for stock splits, combinations, reorganizations and the like) (a "Major Preferred Holder") 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 Company (provided, that the Company has sent to such Major Preferred Holder prior written notice of, and the opportunity to purchase, its Pro Rata Amount (as defined below) in the Qualified Financing), Offered Securities (as defined below) representing at least such Major Preferred Holder's Pro Rata Amount, then the Applicable Portion (as defined below) of the shares of Preferred Stock held by such Major Preferred Holder shall automatically and without any further action on the part of such Major Preferred Holder, be converted into shares of Common Stock on a 10:1 basis whereby each 10 shares of such Preferred Stock are converted into one share of Common Stock, effective upon, subject to, and concurrently with the Applicable Closing (as defined below) of the Qualified Financing; provided that, in the event a Major Preferred Holder holds shares of more than one series of Preferred Stock, and the Applicable Portion of the shares of Preferred Stock to be converted as described above represents less than all of the shares of Preferred Stock held by such Major Preferred Holder, the foregoing 10:1 conversion shall apply first, to such holder's shares of Series C Preferred; second, to such holder's shares of Series B Preferred and Series B-1 Preferred (on a pro rata basis) and thereafter, to such holder's shares of Series A Preferred. Such conversion is referred to as a "Special Mandatory Conversion." For purposes of determining the number of shares of Preferred Stock held by a stockholder, and for determining the amount of Offered Securities that such stockholder has purchased in the Qualified Financing, all shares of Preferred Stock held by Affiliates (as defined below) of such stockholder shall be aggregated with the shares of Preferred Stock held by such stockholder, and all Offered Securities purchased by Affiliates of such stockholder shall be aggregated with the Offered Securities purchased by such stockholder (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).

(b) Procedural Requirements. Upon any Special Mandatory Conversion, each holder of shares of each applicable series of Preferred Stock converted pursuant to Section 4(a) above shall surrender his or 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 Company to indemnify the Company against any claim that may be made against the Company on account of the alleged loss, theft or destruction of such certificate) to the Company at the place designated in such notice, and shall thereafter receive certificates for the number of shares of Common Stock to which such holder is entitled pursuant to this Section 4 and a new certificate for the number of shares, if any, of Series A Preferred, Series B Preferred, Series B-1 Preferred or Series C Preferred, as applicable, represented by such surrendered certificate and not converted pursuant to Section 4(a) above. All rights with respect to the Series A Preferred, Series B Preferred, Series B-1 Preferred or Series C Preferred, as applicable, converted pursuant to Section 4(a) above, including the rights, if any, to receive notices and vote (other than as a holder of Common Stock), will terminate, 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 last sentence of this Section 4(b). If so required by the Company,

certificates surrendered for conversion shall be endorsed or accompanied by written instrument or instruments of transfer, in form satisfactory to the Company, duly executed by the registered holder or by his, her or its attorney duly authorized in writing. As soon as practicable after the applicable Special Mandatory Conversion and the surrender of the certificate or certificates (or lost certificate affidavit and agreement) for the shares of Preferred Stock so converted, the Company shall issue and deliver to such holder, or to his, her or its nominees, a certificate or certificates for the number of shares of Common Stock issuable on such conversion in accordance with the provisions hereof, together with cash as provided in Section 3(d) above 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, Series B Preferred, Series B-1 Preferred or Series C Preferred, as applicable, represented by such surrendered certificate and not converted pursuant to Section 4(a) above.

(c) Effect of Special Mandatory Conversion. All shares of Series A Preferred, Series B Preferred, Series B-1 Preferred or Series C Preferred, as applicable, subject to a Special Mandatory Conversion shall, from and after the time of the applicable Special Mandatory Conversion, no longer be deemed to be outstanding and, notwithstanding the failure of the holder or holders thereof to surrender the certificates for such shares on or prior to such time, all rights with respect to such shares shall immediately cease and terminate at the time of the applicable Special Mandatory Conversion, except only the right of the holders thereof to receive shares of Common Stock in exchange therefor and to receive payment of any dividends declared but unpaid thereon. Such converted Series A Preferred, Series B Preferred, Series B-1 Preferred or Series C Preferred, as applicable, shall be retired and cancelled and may not be reissued as shares of such series, and the Company 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, Series B Preferred, Series B-1 Preferred or Series C Preferred, as applicable, accordingly.

(d) Definitions. For purposes of this Section 4, the following definitions shall apply:

(i) "Affiliate" shall mean, with respect to any holder of shares of Preferred Stock, any person, entity or firm which, directly or indirectly, controls, is controlled by or is under common control with such holder, including, without limitation, any entity of which the holder is a partner or member, any partner, officer, director, trustee, manager, investment advisor, member or employee of such holder and any venture capital fund or mutual fund now or hereafter existing of which the holder is a partner or member which is controlled by or under common control with one or more general partners or managing members of such holder or shares the same management company or investment advisor with such holder.

(ii) "Applicable Closing" shall mean, with respect to any Major Preferred Holder, the latest closing of a Qualified Financing at which such Major Preferred Holder is permitted to purchase Offered Securities pursuant to the terms and conditions of the definitive purchase agreement for such Qualified Financing (as the same may be amended and/or restated in accordance with the terms thereof), as approved by the Company's Board of Directors.

(iii) "Applicable Portion" shall mean, with respect to any Major Preferred Holder, a number of shares of Preferred Stock calculated by multiplying (x) the aggregate number of shares of Preferred Stock held by such Major Preferred Holder immediately prior to the Applicable Closing that triggers a Special Mandatory Conversion of such Major Preferred Holder's shares of Preferred Stock under Section 4(a) by (y) a fraction, the numerator of which is equal to the amount, if positive, by which such holder's Pro Rata Amount exceeds the amount of Offered Securities actually purchased by such Major Preferred Holder at or prior to the Applicable Closing, and the denominator of which is equal to such holder's Pro Rata Amount.

(iii) "Offered Securities" shall mean the securities of the Company set aside by the Board of Directors of the Company for purchase by the Major Preferred Holders in connection with a Qualified Financing, and offered by the Company to such Major Preferred Holders.

(iv) "Pro Rata Amount" shall mean, with respect to any Major Preferred Holder, the lesser of (a) the dollar amount of Offered Securities calculated by multiplying the aggregate dollar amount of all Offered Securities by a fraction, the numerator of which is equal to the number of shares of Common Stock issuable upon conversion (at the then-applicable Conversion Price for each series of Preferred Stock in accordance with Section 3) of all shares of Preferred Stock held by such Major Preferred Holder, and the denominator of which is equal to the aggregate number of shares of Common Stock issuable upon conversion (at the then-applicable Conversion Price for each series of Preferred Stock in accordance with Section 3) of all shares of Preferred Stock held by all Major Preferred Holders, or (b) the maximum dollar amount of Offered Securities that such Major Preferred Holder is permitted by the Company 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 Major Preferred Holders based on the number of shares of Common Stock issuable upon conversion (at the then-applicable Conversion Price for each series of Preferred Stock in accordance with Section 3) of all shares of Preferred Stock held by the Major Preferred Holders.

(v) "Qualified Financing" shall mean any *bona fide* financing transaction in which the Company issues and sells, in one or more closings, shares of capital stock or other securities convertible into or exercisable for shares of capital stock that the Board of Directors of the Company determines to be a Qualified Financing for purposes of this Section 4.

5. Voting.

(a) Except as otherwise expressly provided herein or as required by law, the holders of Preferred Stock and the holders of Common Stock shall vote together and not as separate classes.

(b) Preferred Stock. Each holder of shares of Preferred Stock shall be entitled to the number of votes equal to the number of shares of Common Stock into which such shares of Preferred Stock held by such holder of Preferred Stock could then be converted. The holders of shares of the Preferred Stock shall be entitled to vote on all matters on which the Common Stock shall be entitled to vote. The holders of the Preferred Stock shall be entitled to notice of any stockholders' meeting in accordance with the bylaws of the Company. Fractional votes shall not, however, be permitted and any fractional voting rights resulting from the above formula (after aggregating all shares of Common Stock into which the shares of Preferred Stock held by each holder could be converted), shall be disregarded.

(c) Common Stock. Each holder of shares of Common Stock shall be entitled to one vote for each share thereof held. The number of authorized shares of Common Stock may be increased or decreased (but not below the number of shares thereof then outstanding) by the affirmative vote of the holders of a majority of the stock of the Company entitled to vote, irrespective of the provisions of Section 242(b)(2) of the General Corporation Law of Delaware.

(d) Election of Directors. The authorized number of directors will be set forth in the Company's bylaws. So long as any shares of Series B Preferred or Series B-1 Preferred are outstanding, the holders of the Series B Preferred and Series B-1 Preferred, voting together as a single, separate class, shall have the exclusive and special right to elect one (1) director whom shall be elected by holders of at least a majority of the then outstanding shares of Series B Preferred and Series B-1 Preferred taken together as a single class, and to remove from office such director and to fill any vacancy caused by the resignation, death or removal of such director. So long as any shares of Series A Preferred are outstanding, the holders of the Series A Preferred, voting together as a single, separate class, shall have the exclusive and special right to elect three (3) directors each of whom shall be elected by holders of at least a majority of the then outstanding shares of Series A Preferred, and to remove from office such directors and to fill any vacancy caused by the resignation, death or removal of such directors. The holders of Common Stock and the Preferred Stock, voting together as a single class on an as-converted to Common Stock basis, shall have the exclusive and special right to elect all other directors. Any vacancies on the Board of Directors shall be filled by vote of the holders of the class or series that elected the director whose absence created such vacancy.

(e) Section 2115 of the California Corporations Code. No person entitled to vote at an election for directors may cumulate votes to which such person is entitled, unless, at the time of such election, the Company is subject to Section 2115 of the California Corporations Code. During such time or times that the Company is subject to Section 2115(b) of the California Corporations Code, every stockholder entitled to vote at an election for directors may cumulate such stockholder's votes and give one candidate a number of votes equal to the number of directors to be elected multiplied by the number of votes to which such stockholder's shares are otherwise entitled, or distribute the stockholder's votes on the same principle among as many candidates as such stockholder desires. No stockholder, however, shall be entitled to so cumulate such stockholder's votes unless (i) the names of such candidate or candidates have been placed in nomination prior to the voting and (ii) the stockholder has given notice at the meeting, prior to the voting, of such stockholder's intention to cumulate such stockholder's votes. If any stockholder has given proper notice to cumulate votes, all

stockholders may cumulate their votes for any candidates who have been properly placed in nomination. Under cumulative voting, the candidates receiving the highest number of votes, up to the number of directors to be elected, are elected.

6. Amendments and Changes.

(a) Approval of Series C Preferred. Notwithstanding Section 5 above, for so long as at least 1,000,000 shares of Series C Preferred (as adjusted for stock splits, combinations, reorganizations and the like) remain outstanding, the Company shall not, either directly or indirectly by amendment, merger, consolidation or otherwise, without first obtaining the approval (by vote or written consent as provided by law) of a majority of the Series C Preferred then outstanding, voting together as a single, separate class:

(i) increase or decrease the number of shares of Series A Preferred, Series B Preferred, Series B-1 Preferred or Series C Preferred that the Company shall have the authority to issue;

(ii) change the par value of the Series A Preferred, the Series B Preferred, Series B-1 Preferred or the Series C Preferred; or

(iii) amend, alter or change the powers, preferences, or special rights of the Series C Preferred in the Company's Certificate of Incorporation so as to adversely affect them in a different and disproportionate manner than the other series of any Preferred Stock, provided that for the avoidance of doubt (1) the authorization or issuance of any other series or class of capital stock ranking junior, *pari passu* or senior to the Series C Preferred with respect to one or more powers, preferences or special rights shall not, in and of itself, be deemed to constitute an amendment, alteration or change of the powers, preferences or special rights of the Series C Preferred that adversely affects the Series C Preferred for purposes of this Section 6(a), (2) any waiver of an adjustment to the Series C Conversion Price specified by Section 3(e)(iii) shall be subject to this Section 6(a) and (3) any amendment, repeal or waiver of Section 3(e)(iii)(B)(viii) or any provision under this Section 6(a) shall be subject to this Section 6(a).

(b) Approval of Series B Preferred and Series B-1 Preferred. Notwithstanding Section 5 above, for so long as at least 1,000,000 shares of Series B Preferred and Series B-1 Preferred, taken together as a single class (as adjusted for stock splits, combinations, reorganizations and the like) remain outstanding, the Company shall not, either directly or indirectly by amendment, merger, consolidation or otherwise, without first obtaining the approval (by vote or written consent as provided by law) of a majority of the Series B Preferred and Series B-1 Preferred then outstanding, voting together as a single, separate class:

(i) increase or decrease the number of shares of Series A Preferred, Series B Preferred, Series B-1 Preferred or Series C Preferred that the Company shall have the authority to issue;

(ii) change the par value of the Series A Preferred, the Series B Preferred, Series B-1 Preferred or the Series C Preferred; or

(iii) amend, alter or change the powers, preferences, or special rights of the Series B Preferred and Series B-1 Preferred in the Company's Certificate of Incorporation so as to adversely affect them in a different and disproportionate manner than the other series of any Preferred Stock, provided that for the avoidance of doubt (1) the authorization or issuance of any other series or class of capital stock ranking junior, *pari passu* or senior to the Series B Preferred and Series B-1 Preferred Stock with respect to one or more powers, preferences or special rights shall not, in and of itself, be deemed to constitute an amendment, alteration or change of the powers, preferences or special rights of the Series B Preferred and Series B-1 Preferred that adversely affects the Series B Preferred or Series B-1 Preferred for purposes of this Section 6(b), (2) any waiver of an adjustment to the Series B Conversion Price specified by Section 3(e)(iii) shall be subject to this Section 6(b) and (3) any amendment, repeal or waiver of Section 3(e)(iii)(B)(viii) or any provision under this Section 6(b) shall be subject to this Section 6(b).

(c) Approval of Series A Preferred. Notwithstanding Section 5 above, for so long as at least 1,000,000 shares of Series A Preferred (as adjusted for stock splits, combinations, reorganizations and the like) remain outstanding, the Company shall not, either directly or indirectly by amendment, merger, consolidation or otherwise, without first obtaining the approval (by vote or written consent as provided by law) of a majority of the Series A Preferred then outstanding, voting together as a single, separate class:

(i) increase or decrease the number of shares of Series A Preferred, Series B Preferred, Series B-1 Preferred or Series C Preferred that the Company shall have the authority to issue;

(ii) change the par value of the Series A Preferred, the Series B Preferred, Series B-1 Preferred or the Series C Preferred; or

(iii) amend, alter or change the powers, preferences, or special rights of the Series A Preferred in the Company's Certificate of Incorporation so as to adversely affect them in a different and disproportionate manner than the other series of any Preferred Stock, provided that for the avoidance of doubt (1) the authorization or issuance of any other series or class of capital stock ranking junior, *pari passu* or senior to the Series A Preferred with respect to one or more powers, preferences or special rights shall not, in and of itself, be deemed to constitute an amendment, alteration or change of the powers, preferences or special rights of the Series A Preferred that adversely affects the Series A Preferred for purposes of this Section 6(c), (2) any waiver of an adjustment to the Series A Conversion Price specified by Section 3(e)(iii) shall be subject to this Section 6(c) and (3) any amendment, repeal or waiver of Section 3(e)(iii)(B)(viii) or any provision under this Section 6(c) shall be subject to this Section 6(c).

(d) 75% Supermajority Approval by Preferred Stock. Notwithstanding Section 5 above, for so long as at least 1,000,000 shares of Preferred Stock (as adjusted for stock splits, combinations, reorganizations and the like) remain outstanding, the Company shall not, either directly or indirectly by amendment, merger, consolidation or otherwise, without first obtaining the approval (by vote or written consent as provided by law) of at least seventy five percent (75%) of the Preferred Stock then outstanding, voting together as a single class on an as-converted to Common Stock basis amend, repeal or waive the proviso in Section 2(c) regarding the Preferred Stock vote required not to treat a transaction or series of transactions described in clause (ii) or (iii) thereof as a Liquidation, or any provision under this Section 6(d).

(e) 65% Supermajority Approval by Preferred Stock. Notwithstanding Section 5 above, for so long as at least 1,000,000 shares of Preferred Stock (as adjusted for stock splits, combinations, reorganizations and the like) remain outstanding, the Company shall not, either directly or indirectly by amendment, merger, consolidation or otherwise, without first obtaining the approval (by vote or written consent as provided by law) of at least sixty five percent (65%) of the Preferred Stock then outstanding, voting together as a single class on an as-converted to Common Stock basis:

(i) amend, repeal or waive Section 3(b)(1) regarding the vote required to trigger an automatic conversion of the Preferred Stock into Common Stock, the proviso in Section 4(d)(v) regarding the Preferred Stock vote required not to treat a transaction described therein as a Qualified Financing, or any provision under this Section 6(e);

(ii) authorize or declare a dividend or other Distribution on any of the Company's stock (other than a dividend payable solely in shares of Common Stock);

(iii) redeem or repurchase shares of the Company's stock, except in connection with the repurchase of shares of Common Stock issued to or held by employees, consultants, officers and directors upon termination of their employment or services pursuant to agreements providing for the right of said repurchase, which agreements were authorized by the approval of the Company's Board of Directors;

(iv) take any action that results in any material change in the Company's principal line of business;

(v) increase the number of shares of Common Stock available for issuance under any equity incentive or stock plan of the Company; or

(vi) permit any subsidiary of the Company to do any of the foregoing.

(f) Majority Approval by Preferred Stock. Notwithstanding Section 5 above, and without impairing the rights of holders of Preferred Stock under Sections 6(a), 6(b) and 6(c), for so long as at least 1,000,000 shares of Preferred Stock (as adjusted for stock splits, combinations, reorganizations and the like) remain outstanding, the Company shall not, either directly or indirectly by amendment, merger, consolidation or otherwise, without first obtaining the approval (by vote or written consent as provided by law) of a majority of the Preferred Stock then outstanding, voting together as a single class on an as-converted to Common Stock basis:

(i) amend, repeal or waive any provision of, or add any provision to the Company's Certificate of Incorporation or, unless approved by the Board (including all of the directors elected exclusively by holders of the Series B Preferred and Series B-1 Preferred or Series A Preferred), bylaws of the Company;

(ii) increase or decrease the number of shares of Common Stock that the Company shall have the authority to issue;

(iii) create or issue any securities of the Company (by reclassification or otherwise) having rights, preferences or privileges which are senior to, or *pari passu* with, any of the rights, preferences or privileges of any of the Preferred Stock;

(iv) consummate any Liquidation;

(v) effect a merger or consolidation with or into a subsidiary corporation;

(vi) cause the acquisition of any stock, material assets or business of any entity outside the ordinary course of business in any form of transaction or the formation of any entity for the purpose of establishing a joint venture with any other entity, unless in each case approved by the Company's Board of Directors, which approval shall include a majority of the directors elected exclusively by holders of the Series B Preferred and Series B-1 Preferred or Series A Preferred;

(vii) create or authorize the creation of any debt security or instrument or otherwise incur new indebtedness if the Company's aggregate indebtedness would exceed $500,000 (excluding equipment leases, lines of credit or other debt financing approved by the Company's Board of Directors);

(viii) sell, license, encumber or dispose of all or substantially all of the Company's assets, technology or intellectual property (other than pursuant to equipment leases, lines of credit or other debt financing approved by the Company's Board of Directors);

(ix) change the authorized number of directors of the Company;

(x) effect a recapitalization or reclassification of the Company's outstanding capital stock;

(xi) make any capital expenditure in excess of $250,000 not pursuant to a budget approved by the Board of Directors (including a majority of the directors elected exclusively by holders of the Series B Preferred and Series B-1 Preferred or Series A Preferred);

(xii) adopt or amend any Company equity incentive plan; or

(xiii) permit any subsidiary of the Company to do any of the foregoing or to sell shares to a third party.

7. Notices. Any notice required by the provisions of this Article Fourth or elsewhere under the Company's Certificate of Incorporation or otherwise by law to be given to the holders of Preferred Stock shall be deemed given if deposited in the United States mail, postage prepaid, if deposited with a nationally recognized overnight courier, or if personally delivered, and addressed to each holder of record at such holder's address appearing on the books of the Company.

8. Status of Converted Stock. In the event any shares of Preferred Stock shall be converted pursuant to Section 3 or Section 4 hereof, the shares so converted shall be canceled and shall not thereafter be issuable by the Company, and the Company may thereafter take such appropriate action (without the need for stockholder action) as may be necessary accordingly to amend the Company's Certificate of Incorporation to reduce the authorized number of shares of Preferred Stock (including any series of Preferred Stock).

FIFTH

The Board of Directors shall have the power to adopt, amend and repeal the bylaws of the Company (except insofar as the bylaws of the Company as adopted by action of the stockholders of the Company shall otherwise provide). Any bylaws made by the directors under the powers conferred hereby may be amended or repealed by the directors or by the stockholders, and the powers conferred in this Article Fifth shall not abrogate the right of the stockholders to adopt, amend and repeal bylaws.

SIXTH

Election of directors need not be by written ballot unless the bylaws of the Company shall so provide.

SEVENTH

The Company reserves the right to amend the provisions in its Certificate of Incorporation and in any certificate amendatory hereof in the manner now or hereafter prescribed by law, and all rights conferred on stockholders or others hereunder or thereunder are granted subject to such reservation.

EIGHTH

(a) To the fullest extent permitted by the Delaware General Corporation Law as the same exists or as may hereafter be amended, no director of the Company shall be personally liable to the Company or its stockholders for monetary damages for breach of fiduciary duty as a director. If the Delaware General Corporation Law is amended after approval by the stockholders of this Article Eighth to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director of the Company shall be eliminated or limited to the fullest extent permitted by the Delaware General Corporation Law as so amended.

(b) The Company shall indemnify to the fullest extent permitted by law any person made or threatened to be made a party to an action or proceeding whether criminal, civil, administrative or investigative, by reason of the fact that he, his testator or intestate is or was a director, officer or employee of the Company or any predecessor of the Company or serves or served at any other enterprise as a director, officer or employee at the request of the Company or any predecessor to the Company to the same extent as permitted under subparagraph (a) above.

(c) Neither any amendment nor repeal of this Article Eighth, nor the adoption of any provision of the Company's Certificate of Incorporation inconsistent with this Article Eighth, shall eliminate or reduce the effect of this Article Eighth in respect of any matter occurring or any action or proceeding accruing or arising or that, but for this Article Eighth, would accrue or arise, prior to such amendment, repeal or adoption of an inconsistent provision.

(d) The Company may maintain insurance, at its expense, to protect itself and any director, officer, employee or agent of the Company or another corporation, partnership, joint venture, trust or other enterprise against any such expense, liability or loss, whether or not the Company would have the power to indemnify such person against such expense, liability or loss under the Delaware General Corporation Law.

EXHIBIT 3.3

BYLAWS

OF

FATE THERAPEUTICS, INC.

(a Delaware corporation)

Adopted as of April 27, 2007

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BYLAWS

OF

FATE THERAPEUTICS, INC.
(a Delaware corporation)

Adopted as of April 26, 2007

ARTICLE I.
IDENTIFICATION; OFFICES

Section 1. NAME. The name of the corporation is Fate Therapeutics, Inc. (the "Corporation").

Section 2. PRINCIPAL AND BUSINESS OFFICES. The Corporation may have such principal and other business offices, either within or outside of the state of Delaware, as the Board of Directors may designate or as the Corporation's business may require from time to time.

Section 3. REGISTERED AGENT AND OFFICE. The Corporation's registered agent may be changed from time to time by or under the authority of the Board of Directors. The address of the Corporation's registered agent may change from time to time by or under the authority of the Board of Directors, or the registered agent. The business office of the Corporation's registered agent shall be identical to the registered office. The Corporation's registered office may be but need not be identical with the Corporation's principal office in the state of Delaware. The Corporation's initial registered office shall be in the City of Wilmington, County of New Castle, State of Delaware.

Section 4. PLACE OF KEEPING CORPORATE RECORDS. The records and documents required by law to be kept by the Corporation permanently shall be kept at the Corporation's principal office.

ARTICLE II.
STOCKHOLDERS

Section 1. ANNUAL MEETING. An annual meeting of the stockholders shall be held on such date as may be determined by resolution of the Board of Directors. At each annual meeting, the stockholders shall elect directors to hold office for the term provided in Section 3.1 of these Bylaws.

Section 2. SPECIAL MEETING. A special meeting of the stockholders may be called by the President of the Corporation, the Board of Directors, or by such other officers or persons as the Board of Directors may designate.

Section 3. PLACE OF STOCKHOLDER MEETINGS. The Board of Directors may designate any place, either within or without the State of Delaware, as the place of meeting for any annual meeting or for any special meeting. If no such place is designated by the Board of Directors, the place of meeting will be the principal business office of the Corporation.

Section 4. NOTICE OF MEETINGS. Unless waived as herein provided, whenever stockholders are required or permitted to take any action at a meeting, written notice of the meeting shall be given stating the place, date and hour of the meeting, and, in the case of a special meeting, the purpose or purposes for which the meeting is called. Such written notice shall be given not less than ten (10) days nor more than sixty (60) days before the date of the meeting to each stockholder entitled to vote at the meeting or in the event of a merger, consolidation, share exchange, dissolution or sale, lease or exchange of all or substantially all of the Corporation's property, business or assets not less than twenty (20) days before the date of the meeting. If mailed, notice is given when deposited in the United States mail, postage prepaid, directed to the stockholder at the stockholder's address as it appears on the records of the Corporation. If electronically transmitted, then notice is deemed given when transmitted and directed to a facsimile number or electronic mail address at which the stockholder has consented to receive notice. An affidavit of the secretary or of the transfer agent or other agent of the Corporation that the notice has been given by a form of electronic transmission shall, in the absence of fraud, be *prima facie* evidence of the facts stated therein.

When a meeting is adjourned to another time or place in accordance with Section 2.5 of these Bylaws, notice need not be given of the adjourned meeting if the time and place thereof are announced at the meeting in which the adjournment is taken. At the adjourned meeting the Corporation may conduct 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 5. QUORUM AND ADJOURNED MEETINGS. Unless otherwise provided by law or the Corporation's Certificate of Incorporation, a majority of the shares entitled to vote, present in person or represented by proxy, shall constitute a quorum at a meeting of stockholders. If less than a majority of the shares entitled to vote at a meeting of stockholders is present in person or represented by proxy at such meeting, a majority of the shares so represented may adjourn the meeting from time to time without further notice. At any adjourned meeting at which a quorum is present, any business may be transacted which might have been transacted at the original meeting. The stockholders present at a meeting may continue to transact business until adjournment, notwithstanding the withdrawal of such number of stockholders as may leave less than a quorum.

Section 6. FIXING OF RECORD DATE.

(a) For the purpose of determining stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof, the Board of Directors may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the Board of Directors, and which record date shall not be more than sixty (60) days 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) For the purpose of determining 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 established by the Board of Directors, and which date shall not be more than ten (10) days after the date on which the resolution fixing the record date is adopted by the Board of Directors. If no record date has been fixed by the Board of Directors, 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 law, shall be the first date on which a signed written consent selling 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 office, or an officer or agent of the Corporation having custody of the book in which the proceedings of meetings of stockholders are recorded. Delivery 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' consent to corporate action in writing without a meeting shall be the close of business on the day on which the Board of Directors adopts the resolution taking such prior action.

(c) For the purpose of determining 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 to any change, conversion or exchange of stock, or for the purpose of any other lawful action, the Board of Directors may fix the 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 the stockholders for any such purpose shall be the close of business on the day on which the Board of Directors adopts the resolution relating thereto.

Section 7. VOTING LIST. The officer who has charge of the stock ledger of the Corporation shall prepare and make, at least ten (10) days before every meeting of stockholders, a complete list of stockholders entitled to vote at the meeting, arranged in alphabetical order, and 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, during ordinary business hours, for a period of at least ten (10) days prior to the meeting, either at a place within the city where the meeting is to be held, which place shall be specified in the notice of the meeting, or, if not so specified, at the place where the meeting is to be held. The list shall also be produced and kept at the place of the meeting during the whole time thereof, and may be inspected by any stockholder who is present.

Section 8. VOTING. Unless otherwise provided by the Certificate of Incorporation, each stockholder shall be entitled to one vote for each share of capital stock held by each stockholder. In all matters other than the election of directors, the affirmative vote of the majority of shares present in person or represented by proxy at the meeting and entitled to vote on the subject matter shall be the act of the stockholders. Directors shall be elected by plurality of the votes of the shares present in person or represented by a proxy at the meeting entitled to vote on the election of directors.

Section 9. PROXIES. Each stockholder entitled to vote at a meeting of stockholders or to express consent or dissent to corporate action in writing without a meeting may authorize another person or persons to act for him by proxy, but no such proxy shall be voted or acted upon alter three (3) years from its date, unless the proxy provides for a longer period. A duly executed proxy shall be irrevocable if it states that it is irrevocable and if, and only as long as, it is coupled with an interest sufficient in law to support an irrevocable power. A proxy may remain irrevocable regardless of whether the interest with which it is coupled is an interest in the stock itself or an interest in the Corporation generally.

Section 10. RATIFICATION OF ACTS OF DIRECTORS AND OFFICERS. Except as otherwise provided by law or by the Certificate of Incorporation of the Corporation, any transaction or contract or act of the Corporation or of the directors or the officers of the Corporation may be ratified by the affirmative vote of the holders of the number of shares which would have been necessary to approve such transaction, contract or act at a meeting of stockholders, or by the written consent of stockholders in lieu of a meeting.

Section 11. INFORMAL ACTION OF STOCKHOLDERS. Any action required to be taken at any annual or special meeting of stockholders of the Corporation, or any action which may be taken at any annual or special meeting of such stockholders, may be taken without a meeting, without prior notice and without a vote, if a consent or consents in writing, setting forth the action so taken, shall be delivered to the Corporation 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. Prompt notice of the taking of the corporate action without a meeting by less than unanimous consent shall be given to those stockholders who have not consented in writing. In the event that the action which is consented to is such as would have required the filing of a certificate with any governmental body, if such action had been voted on by stockholders at a meeting thereof, the certificate filed shall state, in lieu of any statement required by law concerning any vote of stockholders, that consent had been given in accordance with the provisions of Section 228 of the Delaware General Corporation Law, and that notice has been given as provided in such section. Without limiting the manner by which consent or notice may be given, written consent and written notice shall be deemed to be given if sent by electronic transmission when directed to a facsimile number or electronic mail address at which the recipient has consented to receive such electronic transmissions.

Section 12. ORGANIZATION. Such person as the Board of Directors may designate or, in the absence of such a designation, the president of the Corporation or, in his or her absence, such person as may be chosen by the holders of a majority of the shares entitled to vote who are present, in person or by proxy, shall call to order any meeting of the stockholders and act as chairman of such meeting. In the absence of the secretary of the Corporation, the chairman of the meeting shall appoint a person to serve as secretary at the meeting.

ARTICLE III.
DIRECTORS

Section 1. NUMBER AND TENURE OF DIRECTORS. The number of directors of the Corporation shall be determined from time to time by the Board. Each director shall hold office until such director's successor is elected and qualified or until such director's earlier resignation or removal. Any director may resign at any time upon written notice to the Corporation.

Section 2. ELECTION OF DIRECTORS. Except as otherwise provided in this Bylaws, directors shall be elected at the annual meeting of stockholders. Directors need not be residents of the State of Delaware. Elections of directors need not be by written ballot.

Section 3. SPECIAL MEETINGS. Special meetings of the Board of Directors may be called by or at the request of the Chairman of the Board, the President or at least one-third of the number of directors constituting the whole board. The person or persons authorized to call special meetings of the Board of Directors may fix any place, either within or without the State of Delaware, as the place for holding any special meeting of the Board of Directors called by them.

Section 4. NOTICE OF SPECIAL MEETINGS OF THE BOARD OF DIRECTORS. Notice of any special meeting of the Board of Directors shall be given at least two (2) days previous thereto by written notice to each director at his or her address. If mailed, such notice shall be deemed to be delivered when deposited in the United States Mail so addressed, with first-class postage thereon prepaid. If sent by any other means (including facsimile, courier, electronic mail or express mail, etc.), such notice shall be deemed to be delivered when actually delivered to the home or business address, electronic address or facsimile number of the director.

Section 5. QUORUM. A majority of the total number of directors as provided in Section 3.1 of these Bylaws shall constitute a quorum for the transaction of business. If less than a majority of the directors are present at a meeting of the Board of Directors, a majority of the directors present may adjourn the meeting from time to time without further notice.

Section 6. VOTING. The vote of the majority of the directors present at a meeting at which a quorum is present shall be the act of the Board of Directors, unless the Delaware General Corporation Law or the Certificate of Incorporation requires a vote of a greater number.

Section 7. VACANCIES. Vacancies in the Board of Directors may be filled by a majority vote of the Board of Directors or by an election either at an annual meeting or at a special meeting of the stockholders called for that purpose. Any directors elected by the stockholders to fill a vacancy shall hold office for the balance of the term for which he or she was elected. A director appointed by the Board of Directors to fill a vacancy shall serve until the next meeting of stockholders at which directors are elected.

Section 8. REMOVAL OF DIRECTORS. A director, or the entire Board of Directors, may be removed, with or without cause, by the holders of a majority of the shares then entitled to vote at an election of directors; provided, however, that if cumulative voting obtains and less than the entire Board of Directors is to be removed, no director may be removed without cause if the votes cast against such director's removal would be sufficient to elect him if then cumulatively voted at an election of the entire Board of Directors.

Section 9. INFORMAL ACTION OF DIRECTORS. 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, and the writing or writings are filed with the minutes of proceedings of the Board of Directors or committee. Without limiting the manner by which consent may be given, members of the Board of Directors may consent by delivery of an electronic transmission when such transmission is directed to a facsimile number or electronic mail address at which the Corporation has consented to receive such electronic transmissions, and copies of the electronic transmissions are filed with the minutes of proceedings of the Board of Directors or committee.

Section 10. PARTICIPATION BY CONFERENCE TELEPHONE. Members of the Board of Directors, or any committee designated by such board, may participate in a meeting of the Board of Directors, or committee thereof, by means of conference telephone or similar communications equipment as long as all persons participating in the meeting can speak with and hear each other, and participation by a director pursuant to this Section 3.10 shall constitute presence in person at such meeting.

Section 11. COMPENSATION OF DIRECTORS. Unless otherwise restricted by the Certificate of Incorporation or these Bylaws, the Board of Directors shall have the authority to fix the compensation of directors. The directors may be paid their expenses, if any, of attendance at each meeting of the Board of Directors and may be paid a fixed sum for attendance at each meeting of the Board of Directors or a stated salary as director. No such payment shall preclude any director from serving the Corporation in any other capacity and receiving compensation therefore. Members of special or standing committees may be allowed like compensation for attending committee meetings.

ARTICLE IV.
WAIVER OF NOTICE

Section 1. WRITTEN WAIVER OF NOTICE. A written waiver of any required notice, signed by or electronically transmitted by the person entitled to notice, whether before or after the date stated therein, shall be deemed equivalent to notice. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of stockholders, directors or members of a committee of directors need be specified in any written waiver of notice.

Section 2. ATTENDANCE AS WAIVER OF NOTICE. Attendance of a person at a meeting shall constitute a waiver of notice of such meeting, except when the person attends a meeting for the express purpose of objecting, and objects at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened.

ARTICLE V.
COMMITTEES

Section 1. GENERAL PROVISIONS. The Board of Directors may, by resolution passed by a majority of the whole Board, designate one or more committees, each committee to consist of one or more of the directors of the Corporation. The Board may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee. In the absence or disqualification of a member at any meeting of a committee, the member or members thereof present at any meeting and not disqualified from voting, whether or not such member or members constitute a quorum, may unanimously appoint another member of the Board of Directors to act at the meeting in the place of any such absent or disqualified member. Any such committee, to the extent provided in the resolution of the Board of Directors, shall have and may exercise all the powers and authority of the Board of Directors in the management of the business and affairs of the Corporation, and may authorize the seal of the Corporation to be affixed to all papers which may require it, but no such committee shall have the power or authority in reference to amending the Certificate of Incorporation, adopting an agreement of merger or consolidation, recommending to the stockholders the sale, lease, or exchange of all or substantially all of the Corporation's property and assets, recommending to the stockholders a dissolution of the Corporation or a revocation of a dissolution, or amending the Bylaws of the Corporation, and, unless the resolution so provides, no such committee shall have the power or authority to declare a dividend, to authorize the issuance of stock or to adopt a certificate of ownership and merger, pursuant to Section 253 of the Delaware General Corporation Law.

ARTICLE VI.
OFFICERS

Section 1. GENERAL PROVISIONS. The Board of Directors shall elect a President and a Secretary of the Corporation. The Board of Directors may also elect a Chairman of the Board, one or more Vice Chairmen of the Board, one or more Vice Presidents, a Treasurer, one or more Assistant Secretaries and Assistant Treasurers and such additional officers as the Board of Directors may deem necessary or appropriate from time to time. Any two or more offices may be held by the same person. The officers elected by the Board of Directors shall have such duties as are hereafter described and such additional duties as the Board of Directors may from time to time prescribe.

Section 2. ELECTION AND TERM OF OFFICE. The officers of the Corporation shall be elected annually by the Board of Directors at the regular meeting of the Board of Directors held after each annual meeting of the stockholders. If the election of officers is not held at such meeting, such election shall be held as soon thereafter as may be convenient. New offices of the Corporation may be created and filled and vacancies in offices may be filled at any time, at a meeting or by the written consent of the Board of Directors. Unless removed pursuant to Section 6.3 of these Bylaws, each officer shall hold office until his successor has been duly elected and qualified, or until his earlier death or resignation. Election or appointment of an officer or agent shall not of itself create contract rights.

Section 3. REMOVAL OF OFFICERS. Any officer or agent elected or appointed by the Board of Directors may be removed by the Board of Directors whenever, in its judgment, the best interests of the Corporation would be served thereby, but such removal shall be without prejudice to the contract rights, if any, of the person(s) so removed.

Section 4. THE CHIEF EXECUTIVE OFFICER. The Board of Directors shall designate whether the Chairman of the Board, if one shall have been chosen, or the President shall be the Chief Executive Officer of the Corporation. If a Chairman of the Board has not been chosen, or if one has been chosen but not designated Chief Executive Officer, then the President shall be the Chief Executive Officer of the Corporation. The Chief Executive Officer shall be the principal executive officer of the Corporation and shall in general supervise and control all of the business and affairs of the Corporation, unless otherwise provided by the Board of Directors. The Chief Executive Officer shall preside at all meetings of the stockholders and of the Board of Directors and shall see that orders and resolutions of the Board of Directors are carried into effect. The Chief Executive Officer may sign bonds, mortgages, certificates for shares and all other contracts and documents whether or not under the seal of the Corporation except in cases where the signing and execution thereof shall be expressly delegated by law, by the Board of Directors or by these Bylaws to some other officer or agent of the Corporation. The Chief Executive Officer shall have general powers of supervision and shall be the final arbiter of all differences between officers of the Corporation and his decision as to any matter affecting the Corporation shall be final and binding as between the officers of the Corporation subject only to the Board of Directors.

Section 5. THE PRESIDENT. In the absence of the Chief Executive Officer or in the event of his inability or refusal to act, if the Chairman of the Board has been designated Chief Executive Officer, the President shall perform the duties of the Chief Executive Officer, and when so acting, shall have all the powers of and be subject to all the restrictions upon the Chief Executive Officer. At all other times the President shall have the active management of the business of the Corporation under the general supervision of the Chief Executive Officer. The President shall have concurrent power with the Chief Executive Officer to sign bonds, mortgages, certificates for shares and other contracts and documents, whether or not under the seal of the Corporation except in cases where the signing and execution thereof shall be expressly delegated by law, by the Board of Directors, or by these Bylaws to some other officer or agent of the Corporation. In general, the President shall perform all duties incident to the office of president and such other duties as the Chief Executive Officer or the Board of Directors may from time to time prescribe.

Section 6. THE CHAIRMAN OF THE BOARD. The Chairman of the Board, if one is chosen, shall be chosen from among the members of the board. If the Chairman of the Board has not been designated Chief Executive Officer, the Chairman of the Board shall perform such duties as may be assigned to the Chairman of the Board by the Chief Executive Officer or by the Board of Directors.

Section 7. VICE CHAIRMAN OF THE BOARD. In the absence of the Chief Executive Officer or in the event of his inability or refusal to act, if the Chairman of the Board has been designated Chief Executive Officer, the Vice Chairman, or if there be more than one, the Vice Chairmen, in the order determined by the Board of Directors, shall perform the duties of

the Chief Executive Officer, and when so acting shall have all the powers of and be subject to all the restrictions upon the Chief Executive Officer. At all other times, the Vice Chairman or Vice Chairmen shall perform such duties and have such powers as the Chief Executive Officer or the Board of Directors may from time to time prescribe.

Section 8. THE VICE PRESIDENT. In the absence of the President or in the event of his inability or refusal to act, the Vice President (or in the event there be more than one Vice President, the Executive Vice President and then the other Vice President or Vice Presidents in the order designated, or in the absence of any designation, then in the order of their election) shall perform the duties of the President, and when so acting, shall have all the powers of and be subject to all the restrictions upon the President. The Vice Presidents shall perform such other duties and have such other powers as the Chief Executive Officer or the Board of Directors may from time to time prescribe.

Section 9. THE SECRETARY. The Secretary shall attend all meetings of the Board of Directors and all meetings of the stockholders and record all the proceedings of the meetings of the Corporation and of the Board of Directors in a book to be kept for that purpose and shall perform like duties for the standing committees when required. The Secretary shall give, or cause to be given, notice of all meetings of the stockholders and special meetings of the Board of Directors, and shall perform such other duties as may be prescribed by the Board of Directors or the Chief Executive Officer, under whose supervision he shall be. The Secretary shall have custody of the corporate seal of the Corporation and the Secretary, or an Assistant Secretary, shall have authority to affix the same to any instrument requiring it and when so affixed, it may be attested by his signature or by the signature of such Assistant Secretary. The Board of Directors may give general authority to any other officer to affix the seal of the Corporation and to attest the affixing by his signature.

Section 10. THE ASSISTANT SECRETARY. The Assistant Secretary, or if there be more than one, the Assistant Secretaries in the order determined by the Board of Directors (or if there be no such determination, then in the order of their election), shall, in the absence of the Secretary or in the event of his inability or refusal to act, perform the duties and exercise the powers of the Secretary and shall perform such other duties and have such other powers as the Chief Executive Officer or the Board of Directors may from time to time prescribe.

Section 11. THE TREASURER. The Treasurer shall have the custody of the corporate funds and securities and shall keep full and accurate accounts of receipts and disbursements in books belonging to the Corporation and shall deposit all moneys and other valuable effects in the name and to the credit of the Corporation in such depositories as may be designated by the Board of Directors. The Treasurer shall disburse the funds of the Corporation as may be ordered by the Board of Directors, taking proper vouchers for such disbursements, and shall render to the President and the Board of Directors, at its regular meetings, or when the Board of Directors so requires, an account of all his transactions as Treasurer and of the financial condition of the Corporation. If required by the Board of Directors, the Treasurer shall give the Corporation a bond (which shall be renewed every six (6) years) in such sum and with such surety or sureties as shall be satisfactory to the Board of Directors for the faithful performance of the duties of his office and for the restoration to the Corporation, in case of his death, resignation, retirement or removal from office, of all books, papers, vouchers, money and other property of whatever kind in his possession or under his control belonging to the Corporation.

Section 12. THE ASSISTANT TREASURER. The Assistant Treasurer, or if there shall be more than one, the Assistant Treasurers in the order determined by the Board of Directors (or if there be no such determination, then in the order of their election), shall, in the absence of the Treasurer or in the event of his inability or refusal to act, perform the duties and exercise the powers of the Treasurer and shall perform such other duties and have such other powers as the Chief Executive Officer or the Board of Directors may from time to time prescribe.

Section 13. OTHER OFFICERS, ASSISTANT OFFICERS AND AGENTS. Officers, Assistant Officers and Agents, if any, other than those whose duties are provided for in these Bylaws, shall have such authority and perform such duties as may from time to time be prescribed by resolution of the board of directors.

Section 14. ABSENCE OF OFFICERS. In the absence of any officer of the Corporation, or for any other reason the Board of Directors may deem sufficient, the Board of Directors may delegate the powers or duties, or any of such powers or duties, of any officers or officer to any other officer or to any director.

Section 15. COMPENSATION. The Board of Directors shall have the authority to establish reasonable compensation of all officers for services to the Corporation.

ARTICLE VII.
INDEMNIFICATION

Section 1. RIGHT TO INDEMNIFICATION OF DIRECTORS AND OFFICERS. The Corporation shall indemnify and hold harmless, to the fullest extent permitted by applicable law as it presently exists or may hereafter be amended, any person (a "Covered Person") who was or is made or is threatened to be made a party or is otherwise involved in any action, suit or proceeding, whether civil, criminal, administrative or investigative (a "proceeding"), by reason of the fact that such person, or a person for whom such person is the legal representative, is or was a director or officer of the Corporation or, while a director or officer of the Corporation, is or was serving at the request of the Corporation as a director, officer, employee or agent of another Corporation or of a partnership, joint venture, trust, enterprise or nonprofit entity, including service with respect to employee benefit plans, against all liability and loss suffered and expenses (including attorneys' fees) reasonably incurred by such Covered Person in such proceeding. Notwithstanding the preceding sentence, except as otherwise provided in Section 7.03, the Corporation shall be required to indemnify a Covered Person in connection with a proceeding (or part thereof) commenced by such Covered Person only if the commencement of such proceeding (or part thereof) by the Covered Person was authorized in advance by the Board of Directors.

Section 2. PREPAYMENT OF EXPENSES OF DIRECTORS AND OFFICERS. The Corporation shall pay the expenses (including attorneys' fees) incurred by a Covered Person in defending any proceeding in advance of its final disposition, provided, however, that, to the

extent required by law, such payment of expenses in advance of the final disposition of the proceeding shall be made only upon receipt of an undertaking by the Covered Person to repay all amounts advanced if it should be ultimately determined that the Covered Person is not entitled to be indemnified under this Article VII or otherwise.

Section 3. CLAIMS BY DIRECTORS AND OFFICERS. If a claim for indemnification or advancement of expenses under this Article VII is not paid in full within thirty days after a written claim therefor by the Covered Person has been received by the Corporation, the Covered Person may file suit to recover the unpaid amount of such claim and, if successful in whole or in part, shall be entitled to be paid the expense of prosecuting such claim. In any such action the Corporation shall have the burden of proving that the Covered Person is not entitled to the requested indemnification or advancement of expenses under applicable law.

Section 4. INDEMNIFICATION OF EMPLOYEES AND AGENTS. The Corporation may indemnify and advance expenses to any person who was or is made or is threatened to be made or is otherwise involved in any proceeding by reason of the fact that such person, or a person for whom such person is the legal representative, is or was an employee or agent of the Corporation or, while an employee or agent of the Corporation, is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation or of a partnership, joint venture, trust, enterprise or nonprofit entity, including service with respect to employee benefit plans, against all liability and loss suffered and expenses (including attorney's fees) reasonably incurred by such person in connection with such proceeding. The ultimate determination of entitlement to indemnification of persons who are non-director or officer employees or agents shall be made in such manner as is determined by the Board of Directors in its sole discretion. Notwithstanding the foregoing sentence, the Corporation shall not be required to indemnify a person in connection with a proceeding initialed by such person if the proceeding was not authorized in advance by the Board of Directors.

Section 5. ADVANCEMENT OF EXPENSES OF EMPLOYEES AND AGENTS. The Corporation may pay the expenses (including attorney's fees) incurred by an employee or agent in defending any proceeding in advance of its final disposition on such terms and conditions as may be determined by the Board of Directors.

Section 6. NON-EXCLUSIVITY OF RIGHTS. The rights conferred on any person by this Article VII shall not be exclusive of any other rights which such person may have or hereafter acquire under any statute, provision of the certificate of incorporation, these Bylaws, agreement, vote of stockholders or disinterested directors or otherwise.

Section 7. OTHER INDEMNIFICATION. The Corporation's obligation, if any, to indemnify any person who was or is serving at its request as a director, officer or employee of another Corporation, partnership, joint venture, trust, organization or other enterprise shall be reduced by any amount such person may collect as indemnification from such other Corporation, partnership, joint venture, trust, organization or other enterprise.

Section 8. INSURANCE. The Board of Directors may, to the full extent permitted by applicable law as it presently exists, or may hereafter be amended from time to time, authorize an appropriate officer or officers to purchase and maintain at the Corporation's

expense insurance: (a) to indemnify the Corporation for any obligation which it incurs as a result of the indemnification of directors, officers and employees under the provisions of this Article VII; and (b) to indemnify or insure directors, officers and employees against liability in instances in which they may not otherwise be indemnified by the Corporation under the provisions of this Article VII.

Section 9. AMENDMENT OR REPEAL. Any repeal or modification of the foregoing provisions of this Article VII shall not adversely affect any right or protection hereunder of any person in respect of any act or omission occurring prior to the time of such repeal or modification. The rights provided hereunder shall inure to the benefit of any Covered Person and such person's heirs, executors and administrators.

ARTICLE VIII.
CERTIFICATES FOR SHARES

Section 1. CERTIFICATES OF SHARES. The shares of the Corporation shall be represented by certificates, provided that the Board of Directors of the Corporation may provide by resolution or resolutions that some or all of any or all classes or series of its stock shall be uncertificated shares. Any such resolution shall not apply to shares represented by a certificate until such certificate is surrendered to the Corporation. Notwithstanding the adoption of such a resolution by the Board of Directors, every holder of stock represented by certificates and upon request every holder of uncertificated shares shall be entitled to have a certificate signed by, or in the name of the Corporation by the Chairman or Vice Chairman of the Board of Directors, Chief Executive Officer, or the President or Vice President, and by the Treasurer or an Assistant Treasurer, or the Secretary or an Assistant Secretary of the Corporation representing the number of shares registered in certificate form. Any or all the signatures on the certificate may be a facsimile.

Section 2. SIGNATURES OF FORMER OFFICER, TRANSFER AGENT OR REGISTRAR. 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 by the Corporation with the same effect as if such person or entity were such officer, transfer agent or registrar at the date of issue.

Section 3. TRANSFER OF SHARES. Transfers of shares of the Corporation shall be made only on the books of the Corporation by the holder of record thereof or by his legal representative, who shall furnish proper evidence of authority to transfer, or by his or her attorney thereunto authorized by power of attorney duly executed and filed with the Secretary of the Corporation, and on surrender for cancellation of certificate for such shares. Prior to due presentment of a certificate for shares for registration of transfer. The Corporation may treat a registered owner of such shares as the person exclusively entitled to vote, to receive notifications and otherwise have and exercise all of the right and powers of an owner of shares.

Section 4. LOST, DESTROYED OR STOLEN CERTIFICATES. Whenever a certificate representing shares of the Corporation has been lost, destroyed or stolen, the holder thereof may file in the office of the Corporation an affidavit setting forth, to the best of his knowledge and belief, the time, place, and circumstance of such loss, destruction or theft

together with a statement of indemnity sufficient in the opinion of the Board of Directors to indemnify the Corporation against any claim that may he made against it on account of the alleged loss of any such certificate. Thereupon the Board may cause to be issued to such person or such person's legal representative a new certificate or a duplicate of the certificate alleged to have been lost, destroyed or stolen. In the exercise of its discretion, the Board of Directors may waive the indemnification requirements provided herein.

ARTICLE IX.
DIVIDENDS

Section 1. DECLARATIONS OF DIVIDENDS. Dividends upon the capital stock of the Corporation, subject to the provisions of the Certificate of Incorporation, if any, may be declared by the Board of Directors at any regular or special meeting, pursuant to law. Dividends may be paid in cash, in property, or in shares of the capital stock, subject to the provisions of the Certificate of Incorporation.

Section 2. REQUIREMENTS FOR PAYMENT OF DIVIDENDS. Before payment of any dividend there may be set aside out of any funds of the Corporation available for dividends such sum or sums as the directors from time to time, in their absolute discretion, think proper as a reserve fund to meet contingencies, or for equalizing dividends, or for repairing or maintaining any properly of the Corporation, or for such other purpose as the directors shall think conducive to the interests of the Corporation, and the directors may abolish any such reserve.

ARTICLE X.
GENERAL PROVISIONS

Section 1. CONTRACTS. The Board of Directors may authorize any officer or officers, agent or agents, to enter into any contract or execute and deliver any instrument in the name of and on behalf of the Corporation, and such authority may be general or confined to specific instances.

Section 2. LOANS. No loans shall be contracted on behalf of the Corporation and no evidences of indebtedness shall be issued in its name unless authorized by a resolution of the Board of Directors. Such authority may be general or confined to specific instances.

Section 3. CHECKS, DRAFTS, ETC.. All checks, drafts or other orders for the payment of money, notes or other evidences of indebtedness issued in the name of the Corporation shall be signed by one or more officers or agents of the Corporation and in such manner as shall from time to time be determined by resolution of the Board of Directors.

Section 4. DEPOSITS. The funds of the Corporation may be deposited or invested in such bank account, in such investments or with such other depositaries as determined by the Board of Directors.

Section 5. FISCAL YEAR. The fiscal year of the Corporation shall be fixed by resolution of the Board of Directors.

Section 6. SEAL. The corporate seal shall have inscribed thereon the name of the Corporation, the year of its organization and the words “Corporate Seal, Delaware”. Said seal may be used by causing it or a facsimile thereof to be impressed or affixed or reproduced or otherwise.

Section 7. ANNUAL STATEMENT. The Board of Directors shall present at each annual meeting, and at any special meeting of the stockholders when called for by vote of the stockholders, a full and clear statement of the business and condition of the Corporation.

ARTICLE XI.
AMENDMENTS

Section 1. AMENDMENTS. These Bylaws may be altered, amended or repealed or new Bylaws may be adopted by the stockholders or by the Board of Directors, when such power is conferred upon the Board of Directors by the Certificate of Incorporation, at any regular meeting of the stockholders or of the Board of Directors or at any special meeting of the stockholders or of the Board of Directors if notice of such alteration, amendment, repeal or adoption of new Bylaws be contained in the notice of such special meeting. If the power to adopt, amend or repeal Bylaws is conferred upon the Board of Directors by the Certificate of Incorporation it shall not divest or limit the power of the stockholders to adopt, amend or repeal Bylaws.

EXHIBIT 4.2

THIS WARRANT AND THE SHARES ISSUABLE HEREUNDER HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "ACT"), OR THE SECURITIES LAWS OF ANY STATE AND, EXCEPT AND PURSUANT TO THE PROVISIONS OF ARTICLE 5 BELOW, MAY NOT BE OFFERED, SOLD OR OTHERWISE TRANSFERRED, PLEDGED OR HYPOTHECATED UNLESS AND UNTIL REGISTERED UNDER SAID ACT AND APPLICABLE STATE SECURITIES LAW OR, IN THE OPINION OF LEGAL COUNSEL IN FORM AND SUBSTANCE SATISFACTORY TO THE ISSUER OF THESE SECURITIES, SUCH OFFER, SALE OR TRANSFER, PLEDGE OR HYPOTHECATION IS EXEMPT FROM REGISTRATION.

WARRANT TO PURCHASE STOCK

Company: Fate Therapeutics, Inc., a Delaware corporation
Number of Shares: As set forth below
Class of Stock: As set forth below
Warrant Price: As set forth below
Issue Date: January 5, 2009
Expiration Date: January 5, 2019
Credit Facility: This Warrant is issued in connection with that certain Loan and Security Agreement of even date herewith between Silicon Valley Bank and the Company.

THIS WARRANT CERTIFIES THAT, for good and valuable consideration, SILICON VALLEY BANK (Silicon Valley Bank, together with any successor or permitted assignee or transferee of this Warrant or of any shares issued upon exercise hereof, is referred to hereinafter as "Holder") is entitled to purchase the number of fully paid and non-assessable shares (the "Shares") of the above-stated Class of Stock (the "Class") of the above-named company (the "Company") at the above-stated Warrant Price, all as set forth above and as adjusted pursuant to Article 2 of this Warrant, subject to the provisions and upon the terms and conditions set forth in this Warrant.

A. Number and Class of Shares; Warrant Price.

(1) Certain Definitions. As used herein, the following definitions have the respective meanings set forth below:

"Acquisition" has the meaning given in Section 1.6.1 below.

"IPO" means the Company's initial, underwritten offering and sale of its shares to the public pursuant to an effective registration statement under the Securities Act of 1933, as amended.

"Qualified Financing" means the first sale or issuance by the Company after the Issue Date of this Warrant set forth above, in a single transaction or series of related transactions, of shares of its convertible preferred stock or other senior equity securities to one or more investors for cash for financing purposes.

"Qualified Financing Securities" means the class and series of convertible preferred stock or other senior equity security sold or issued by the Company in the Qualified Financing.

"Qualified Financing Price" means the lowest price per share for which Qualified Financing Securities are sold or issued by the Company in the Qualified Financing.

"Series A Price" means $1.00, subject to adjustment from time to time upon the occurrence of events described in Article 2 hereof.

"Series A Stock" shall mean the Company's Series A Convertible Preferred Stock, $0.001 par value per share, and any securities of the Company into or for which the outstanding shares of Series A Preferred Stock may be converted, reclassified, reorganized or exchanged.

(2) Class of Shares. The class and series of the Company's capital stock for which this Warrant shall be exercisable (the "Class") shall be Qualified Financing Securities; provided, that if the Qualified Financing shall not have been consummated, for any reason or no reason, on or before April 30, 2010, then the "Class" shall be Series A Stock from and after such date; provided, further, that if, prior to both April 30, 2010 and the consummation of the Qualified Financing, there shall be an Acquisition or IPO, then "Class" shall be Series A Stock as of immediately prior to (i) the effectiveness of the registration statement filed in connection with the IPO, or (ii) the closing of the Acquisition, as the case may be.

(3) Warrant Price. The purchase price per Share hereunder (the "Warrant Price") shall be the Qualified Financing Price; provided, that if the Qualified Financing shall not have been consummated, for any reason or no reason, on or before April 30, 2010, then the "Warrant Price" shall be the Series A Price from and after such date; provided, further, that if, prior to both April 30, 2010 and the consummation of the Qualified Financing, there shall be an Acquisition or IPO, then the "Warrant Price" shall be the Series A Price as of immediately prior to (i) the effectiveness of the registration statement filed in connection with the IPO, or (ii) the closing of the Acquisition, as the case may be; and in any event subject to further adjustment thereafter from time to time in accordance with the provisions of this Warrant.

(4) Number of Shares. This Warrant shall be exercisable for such number of shares of the Class as shall equal (a) $60,000, divided by (b) the applicable Warrant Price as determined in accordance with paragraph A(3) above, and subject to adjustment from time to time in accordance with the provisions of this Warrant.

ARTICLE 1. EXERCISE.

1.1 Method of Exercise. Holder may exercise this Warrant by delivering the original of this Warrant together with a duly executed Notice of Exercise in substantially the form attached as Appendix 1 to the principal office of the Company. Unless Holder is exercising the conversion right set forth in Article 1.2, Holder shall also deliver to the Company a check, wire transfer (to an account designated by the Company), or other form of payment acceptable to the Company for the aggregate Warrant Price for the Shares being purchased.

1.2 Conversion Right. In lieu of exercising this Warrant as specified in Article 1.1, Holder may from time to time convert this Warrant, in whole or in part, into a number of Shares determined by dividing (a) the aggregate fair market value of the Shares or other securities otherwise issuable upon exercise of this Warrant minus the aggregate Warrant Price of such Shares by (b) the fair market value of one Share. The fair market value of the Shares shall be determined pursuant to Article 1.3.

1.3 Fair Market Value. If the Company's common stock is traded in a public market and the Shares are common stock, the fair market value of a Share shall be the closing price of a share of common stock reported for the business day immediately before Holder delivers this Warrant together with its Notice of Exercise to the Company (or in the instance where the Warrant is exercised immediately prior to the effectiveness of the IPO, the "price to public" per share price specified in the final prospectus relating to such offering). If the Company's common stock is traded in a public market and the Shares are preferred stock, the fair market value of a Share shall be the closing price of a share of the Company's common stock reported for the business day immediately before Holder delivers this Warrant together with its Notice of Exercise to the Company (or, in the instance where the Warrant is exercised immediately prior to the effectiveness of the IPO, the initial "price to public" per share price specified in the final prospectus relating to such offering), in both cases, multiplied by the number of shares of the Company's common stock into which a Share is convertible. If the Company's common stock is not traded in a public market, the Board of Directors of the Company shall determine fair market value in its reasonable good faith judgment.

1.4 Delivery of Certificate and New Warrant. Promptly after Holder exercises or converts this Warrant and, if applicable, the Company receives payment of the aggregate Warrant Price, the Company shall deliver to Holder certificates for the Shares acquired and, if this Warrant has not been fully exercised or converted and has not expired, a new Warrant representing the Shares not so acquired.

1.5 Replacement of Warrants. On receipt of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant and, in the case of loss, theft or destruction, on delivery of an indemnity agreement reasonably satisfactory in form and amount to the Company or, in the case of mutilation, on surrender and cancellation of this Warrant, the Company shall execute and deliver, in lieu of this Warrant, a new warrant of like tenor.

1.6 Treatment of Warrant Upon Acquisition of Company.

1.6.1 "Acquisition". For the purpose of this Warrant, "Acquisition" means any sale, license, or other disposition of all or substantially all of the assets of the Company, or any reorganization, consolidation, merger or sale of outstanding capital stock of the Company where the holders of the Company's securities before the transaction beneficially own less than a majority of the outstanding voting securities of the surviving entity after the transaction.

1.6.2 Treatment of Warrant at Acquisition.

A) Upon the written request of the Company, Holder agrees that, in the event of an Acquisition in which the sole consideration is cash and/or Marketable Securities, either (a) Holder shall exercise its conversion or purchase right under this Warrant and such exercise will be deemed effective immediately prior to the consummation of such Acquisition or (b) if Holder elects not to exercise the Warrant, this Warrant will expire upon the consummation of such Acquisition. The Company shall provide the Holder with written notice of its request relating to the foregoing (together with such reasonable information as the Holder may request in connection with such contemplated Acquisition giving rise to such notice), which is to be delivered to Holder not less than ten (10) days prior to the closing of the proposed Acquisition.

B) Upon the written request of the Company, Holder agrees that, in the event of an Acquisition that is an "arms length" sale of all or substantially all of the Company's assets (and only its assets) to a third party that is not an Affiliate (as defined below) of the Company (a "True Asset Sale"), either (a) Holder shall exercise its conversion or purchase right under this Warrant and such exercise will be deemed effective immediately prior to the consummation of such Acquisition or (b) if Holder elects not to exercise the Warrant, this Warrant will continue until the Expiration Date if the Company continues as a going concern following the closing of any such True Asset Sale. The Company shall provide the Holder with written notice of its request relating to the foregoing (together with such reasonable information as the Holder may request in connection with such contemplated Acquisition giving rise to such notice), which is to be delivered to Holder not less than ten (10) days prior to the closing of the proposed Acquisition.

C) Upon the closing of any Acquisition other than those particularly described in subsections (A) and (B) above, the successor entity shall assume the obligations of this Warrant, and this Warrant shall be exercisable for the same securities, cash, and property as would be payable for the Shares issuable upon exercise of the unexercised portion of this Warrant as if such Shares were outstanding on the record date for the Acquisition and subsequent closing. The Warrant Price and/or number of Shares shall be adjusted accordingly.

D) As used in this Article 1.6, (a) "Marketable Securities" means securities meeting all of the following requirements: (i) the issuer thereof is then subject to the reporting requirements of Section 13 or Section 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and is then current in its filing of all required reports and other information under the Act and the Exchange Act; (ii) the class and series of shares or other security of the issuer that would be received by Holder in connection with the Acquisition were Holder to exercise or convert this Warrant on or prior to the closing thereof is then traded on a national securities exchange or over-the-counter market, and (iii) Holder would not be restricted by contract or by applicable federal and state securities laws from publicly re-selling, within six (6) months and one day following the closing of such Acquisition, all of the issuer's shares and/or other securities that would be received by Holder in such Acquisition were Holder to exercise or convert this Warrant in full on or prior to the closing of such Acquisition; and (b) "Affiliate" shall mean any person or entity that owns or controls directly or indirectly ten percent (10%) or more of the stock of Company, any person or entity that controls or is controlled by or is under common control with such persons or entities, and each of such person's or entity's officers, directors, joint venturers or partners, as applicable.

ARTICLE 2. ADJUSTMENTS TO THE SHARES.

2.1 Stock Dividends, Splits, Etc. If the Company declares or pays a dividend on the outstanding shares of the Class payable in common stock or other securities, then upon exercise of this Warrant, for each Share acquired, Holder shall receive, without cost to Holder, the total number and kind of securities to which Holder would have been entitled had Holder owned the Shares of record as of the date the dividend occurred. If the Company subdivides the outstanding shares of the Class by reclassification or otherwise into a greater number of shares, the number of Shares purchasable hereunder shall be proportionately increased and the Warrant Price shall be proportionately decreased. If the outstanding shares of the Class are combined or consolidated, by reclassification or otherwise, into a lesser number of shares, the Warrant Price shall be proportionately increased and the number of Shares shall be proportionately decreased.

2.2 Reclassification, Exchange, Combinations or Substitution. Upon any reclassification, exchange, substitution, or other event that results in a change of the number and/or class of the securities issuable upon exercise or conversion of this Warrant, Holder shall be entitled to receive, upon exercise or conversion of this Warrant, the number and kind of securities and property that Holder would have received for the Shares if this Warrant had been exercised immediately before such reclassification, exchange, substitution, or other event, and the Warrant Price shall be proportionately adjusted. Such an event shall include, without limitation, any automatic conversion of the outstanding or issuable securities of the Company of the same class or series as the Shares to common stock pursuant to the terms of the Company's Certificate of Incorporation. The Company or its successor shall promptly issue to Holder an amendment to this Warrant setting forth the number and kind of such new securities or other property issuable upon exercise or conversion of this Warrant as a result of such reclassification, exchange, substitution or other event that results in a change of the number and/or class of securities issuable upon exercise or conversion of this Warrant. The amendment to this Warrant shall provide for adjustments which shall be as nearly equivalent as may be practicable to the adjustments provided for in this Article 2 including, without limitation, adjustments to the Warrant Price and to the number of securities or property issuable upon exercise of the new Warrant. The provisions of this Article 2.2 shall similarly apply to successive reclassifications, exchanges, substitutions, or other events.

2.3 Adjustments for Diluting Issuances. The number of shares of common stock issuable upon conversion of the Shares shall be subject to adjustment, from time to time in the manner set forth in the Company's Certificate of Incorporation as if the Shares were issued and outstanding on and as of the date of any such required adjustment. The provisions set forth for the Class in the Company's Certificate of Incorporation relating to the above in effect as of the Issue Date may not be amended, modified or waived, without the prior written consent of Holder unless such amendment, modification or waiver affects the rights associated with the Shares in the same manner as such amendment, modification or waiver affects the rights associated with all other shares of the Class.

2.4 No Impairment. The Company shall not, by amendment of its Certificate of Incorporation or through a reorganization, transfer of assets, consolidation, merger, dissolution, issue, or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms to be observed or performed under this Warrant by the Company, but shall at all times in good faith assist in carrying out of all the provisions of this Article 2 and in taking all such action as may be necessary or appropriate to protect Holder's rights under this Article against impairment.

2.5 Fractional Shares. No fractional Shares shall be issuable upon exercise or conversion of the Warrant and the number of Shares to be issued shall be rounded down to the nearest whole Share. If a fractional share interest arises upon any exercise or conversion of the Warrant, the Company shall eliminate such fractional share interest by paying Holder the amount computed by multiplying the fractional interest by the fair market value of a full Share.

2.6 Certificate as to Adjustments. Upon each adjustment of the Warrant Price, Class and/or number of Shares, the Company shall promptly notify Holder in writing, and, at the Company's expense, promptly compute such adjustment, and furnish Holder with a certificate of its Chief Financial Officer setting forth such adjustment and the facts upon which such adjustment is based. The Company shall, upon written request, furnish Holder a certificate setting forth the Warrant Price, Class and number of Shares in effect upon the date thereof and the series of adjustments leading to such Warrant Price, Class and number of Shares.

ARTICLE 3. REPRESENTATIONS AND COVENANTS OF THE COMPANY.

3.1 Representations and Warranties. The Company represents and warrants to, and agrees with, the Holder as follows:

(a) The Series A Price first set forth above is not greater than the price per share at which shares of Series A Stock were last issued in an arms-length transaction in which at least $500,000 of such shares were sold.

(b) All Shares which may be issued upon the exercise of the purchase right represented by this Warrant, and all securities, if any, issuable upon conversion of the Shares, shall, upon issuance in accordance with the terms of this Warrant, be duly authorized, validly issued, fully paid and non-assessable, and free of any liens and encumbrances except for restrictions on transfer provided for herein or under applicable federal and state securities laws.

(c) The Company's capitalization table attached hereto as Schedule 1 is true and complete as of the Issue Date.

3.2 Notice of Certain Events. If the Company proposes at any time (a) to declare any dividend or distribution upon the outstanding shares of the Class, whether in cash, property, stock, or other securities and whether or not a regular cash dividend; (b) to offer for subscription or sale pro rata to the holders of the outstanding shares of the Class any additional shares of any class or series of the Company's stock (other than pursuant to contractual pre-emptive rights); (c) to effect any reclassification, reorganization or recapitalization of the shares of the Class; or (d) to effect an

Acquisition or to liquidate, dissolve or wind up; then, in connection with each such event, the Company shall give Holder: (1) at least 10 days prior written notice of the date on which a record will be taken for such dividend, distribution, or subscription rights (and specifying the date on which the holders of shares of the same class and series as the Shares will be entitled thereto) or for determining rights to vote, if any, in respect of the matters referred to in (c) and (d) above; and (2) in the case of the matters referred to in (c) and (d) above at least 10 days prior written notice of the date when the same will take place (and specifying the date on which the holders of shares of the same class and series as the Shares will be entitled to exchange their shares for the securities or other property deliverable upon the occurrence of such event).

3.3 Registration Under Securities Act of 1933, as amended. The Company agrees that the Shares or, if the Shares are convertible into common stock of the Company, such common stock, shall have certain incidental, or "Piggyback," and S-3 registration rights pursuant to and as set forth in Sections 1.4 and 1.5 (together with all other registration rights-related sections of general applicability) of the Company's Investor Rights Agreement dated September 28, 2007 (as amended from time to time, the "Rights Agreement'). The provisions set forth in the Rights Agreement relating to the foregoing registration rights in effect as of the Issue Date may not be amended, modified or waived without the prior written consent of Holder unless such amendment, modification or waiver affects the rights associated with the Shares in the same manner as such amendment, modification, or waiver affects the rights associated with all other shares of the Class whose holders are parties to the Rights Agreement.

3.4 No Shareholder Rights. Except as provided in this Warrant, Holder will not have any rights as a shareholder of the Company until the exercise of this Warrant.

3.5 Certain Information. The Company agrees to provide Holder at any time and from time to time with such information as Holder may reasonably request for purposes of Holder's compliance with regulatory, accounting and reporting requirements applicable to Holder.

ARTICLE 4. REPRESENTATIONS, WARRANTIES OF THE HOLDER. The Holder represents and warrants to the Company as follows:

4.1 Purchase for Own Account. This Warrant and the securities to be acquired upon exercise of this Warrant by Holder will be acquired for investment for Holder's account, not as a nominee or agent, and not with a view to the public resale or distribution within the meaning of the Act. Holder also represents that it has not been formed for the specific purpose of acquiring this Warrant or the Shares.

4.2 Disclosure of Information. Holder has received or has had full access to all the information it considers necessary or appropriate to make an informed investment decision with respect to the acquisition of this Warrant and its underlying securities. Holder further has had an opportunity to ask questions and receive answers from the Company regarding the terms and conditions of the offering of this Warrant and its underlying securities and to obtain additional information (to the extent the Company possessed such information or could acquire it without unreasonable effort or expense) necessary to verify any information furnished to Holder or to which Holder has access.

4.3 Investment Experience. Holder understands that the purchase of this Warrant and its underlying securities involves substantial risk. Holder has experience as an investor in securities of companies in the development stage and acknowledges that Holder can bear the economic risk of such Holder's investment in this Warrant and its underlying securities and has such knowledge and experience in financial or business matters that Holder is capable of evaluating the merits and risks of its investment in this Warrant and its underlying securities and/or has a preexisting personal or business relationship with the Company and certain of its officers, directors or controlling persons of a nature and duration that enables Holder to be aware of the character, business acumen and financial circumstances of such persons.

4.4 Accredited Investor Status. Holder is an "accredited investor" within the meaning of Regulation D promulgated under the Act.

4.5 The Act. Holder understands that this Warrant and the Shares issuable upon exercise or conversion hereof have not been registered under the Act in reliance upon a specific exemption therefrom, which exemption depends upon, among other things, the bona fide nature of the Holder's investment intent as expressed herein. Holder understands that this Warrant and the Shares issued upon any exercise or conversion hereof must be held indefinitely unless subsequently registered under the Act and qualified under applicable state securities laws, or unless exemption from such registration and qualification are otherwise available.

ARTICLE 5. MISCELLANEOUS.

5.1 Term: Subject to Article 1.6, this Warrant is exercisable in whole or in part at any time and from time to time on or before the Expiration Date.

5.2 Legends. This Warrant and the Shares (and the securities issuable, directly or indirectly, upon conversion of the Shares, if any) shall be imprinted with a legend in substantially the following form:

> THIS WARRANT AND THE SHARES ISSUABLE HEREUNDER HAVE NOT BEEN REGISTERED UNDER THE ACT, OR THE SECURITIES LAWS OF ANY STATE AND, EXCEPT AND PURSUANT TO THE PROVISIONS OF ARTICLE 5 OF THAT CERTAIN WARRANT TO PURCHASE STOCK ISSUED BY THE COMPANY TO SILICON VALLEY BANK DATED AS OF JANUARY 5, 2009, MAY NOT BE OFFERED, SOLD OR OTHERWISE TRANSFERRED, PLEDGED OR HYPOTHECATED UNLESS AND UNTIL REGISTERED UNDER SAID ACT AND APPLICABLE STATE SECURITIES LAW OR, IN THE OPINION OF LEGAL COUNSEL IN FORM AND SUBSTANCE SATISFACTORY TO THE ISSUER OF THESE SECURITIES, SUCH OFFER, SALE OR TRANSFER, PLEDGE OR HYPOTHECATION IS EXEMPT FROM REGISTRATION.

5.3 Compliance with Securities Laws on Transfer. This Warrant and the Shares issuable upon exercise of this Warrant (and the securities issuable, directly or indirectly, upon conversion of the Shares, if any) may not be transferred or assigned in whole or in part without compliance with applicable federal and state securities laws

by the transferor and the transferee (including, without limitation, the delivery of investment representation letters and legal opinions reasonably satisfactory to the Company, as reasonably requested by the Company). The Company shall not require Holder to provide an opinion of counsel if the transfer is to SVB Financial Group (Silicon Valley Bank's parent company) or any other affiliate of Holder, provided that any such transferee is an "accredited investor" as defined in Regulation D promulgated under the Act.

5.4 Transfer Procedure. After receipt by Silicon Valley Bank ("Bank") of the executed Warrant, Bank will transfer all of this Warrant to SVB Financial Group, Holder's parent company. Subject to the provisions of Article 5.3 and upon providing the Company with written notice, SVB Financial Group and any subsequent Holder may transfer all or part of this Warrant or the Shares issuable upon exercise of this Warrant (or the securities issuable directly or indirectly, upon conversion of the Shares, if any) to any transferee, provided, however, in connection with any such transfer, SVB Financial Group or any subsequent Holder will give the Company notice of the portion of the Warrant being transferred with the name, address and taxpayer identification number of the transferee and Holder will surrender this Warrant to the Company for reissuance to the transferee(s) (and Holder if applicable). The Company may refuse to transfer this Warrant or the Shares to any person who directly competes with the Company, unless, in either case, the stock of the Company is publicly traded.

5.5 Notices. All notices and other communications from the Company to the Holder, or vice versa, shall be deemed delivered and effective when given personally or mailed by first-class registered or certified mail, postage prepaid (or on the first business day after transmission by facsimile), at such address as may have been furnished to the Company or Holder, as the case may be, in writing by the Company or such holder from time to time. All notices to Holder shall be addressed as follows until the Company receives notice of a change of address in connection with a transfer or otherwise:

SVB Financial Group
Attn: Treasury Department
3003 Tasman Drive, HA 200
Santa Clara, CA 95054
Telephone: 408-654-7400
Facsimile: 408-496-2405

Notice to the Company shall be addressed as follows until Holder receives notice of a change in address:

Fate Therapeutics, Inc.
Attn: Chief Financial Officer
10931 North Torrey Pines Road
Suite 107
La Jolla, CA 92037
Facsimile: 206-674-3026

5.6 Waiver. This Warrant and any term hereof may be changed, waived, discharged or terminated only by an instrument in writing signed by the party against which enforcement of such change, waiver, discharge or termination is sought.

5.7 Attorney's Fees. In the event of any dispute between the parties concerning the terms and provisions of this Warrant, the party prevailing in such dispute shall be entitled to collect from the other party all costs incurred in such dispute, including reasonable attorneys' fees.

5.8 Automatic Conversion upon Expiration. In the event that, upon the Expiration Date, the fair market value of one Share (or other security issuable upon the exercise hereof) as determined in accordance with Article 1.3 above is greater than the Warrant Price in effect on such date, then this Warrant shall automatically be deemed on and as of such date to be converted pursuant to Article 1.2 above as to all Shares (or such other securities) for which it shall not previously have been exercised or converted, and the Company shall promptly deliver a certificate representing the Shares (or such other securities) issued upon such conversion to Holder.

5.9 Counterparts. This Warrant may be executed in counterparts, all of which together shall constitute one and the same agreement.

5.10 Governing Law. This Warrant shall be governed by and construed in accordance with the laws of the State of California, without giving effect to its principles regarding conflicts of law.

5.11 Market Standoff. Holder agrees in connection with the IPO that, upon request of the underwriters managing such IPO, Holder shall not to sell, make any short sale of, loan, pledge or otherwise hypothecate or encumber, grant any option for the purchase of, or otherwise dispose of any Registrable Securities (as defined in the Rights Agreement) (other than those included in the registration) without the prior written consent of such underwriters, as the case may be, for such period of time (not to exceed 180 days, but subject to such extension(s) as may be required by the underwriters in order to publish research reports while complying with Rule 2711 of the National Association of Securities Dealers, Inc.) as may be requested by such managing underwriters; provided, that all directors, officers and holders of one percent (1%) or more of the Company's outstanding capital stock are similarly bound; and provided further that any early release of any then-current or former officer or director or holder of one percent (1%) or more of the Company's outstanding capital stock from market standoff agreements similar to the foregoing is apportioned pro rata among all securityholders bound by such market standoff agreements.

"COMPANY"

FATE THERAPEUTICS, INC.

By: /s/ Scott Wolchko

Name: Scott Wolchko
(Print)

Title: CFO, Treasurer & Secretary

"HOLDER"

SILICON VALLEY BANK

By: /s/ Minh Le

Name: Minh Le
(Print)
Title: Relationship Manager

EXHIBIT 4.3

FIRST AMENDMENT TO
WARRANT TO PURCHASE STOCK DATED JANUARY 5, 2009

This **FIRST AMENDMENT TO WARRANT TO PURCHASE STOCK DATED** (this "Amendment") is entered into this 25th day of August, 2011, by and between SVB FINANCIAL GROUP ("SVB") and Fate Therapeutics, Inc., a Delaware corporation ("Borrower").

RECITALS

A. Silicon Valley Bank ("Bank") and Borrower have entered into that certain Loan and Security Agreement dated as of January 5, 2009, as amended by that certain Amendment No. I to Loan and Security Agreement dated as of May 4, 2010 (as the same may from time to time be further amended, modified, supplemented or restated, the "Loan Agreement"). In connection with the Loan Agreement, Borrower issued that certain Warrant to Purchase Stock dated January 5, 2009 to Bank to purchase shares of Borrower's Preferred Stock as more specifically stated therein (the "Warrant").

B. Bank has agreed to amend certain provisions of the Loan Agreement as set forth in that certain Second Amendment to Loan and Security Agreement entered into concurrently herewith (the "LSA Amendment").

C. In connection with the LSA Amendment, the parties desire to amend the Warrant to be consistent with the new warrant being issued to Bank in connection with the LSA Amendment.

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing recitals and other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, and intending to be legally bound, the parties hereto agree as follows:

1. Section 1.6 (Treatment of Warrant Upon Acquisition of Company). Section 1.6.2(D) of the Warrant is hereby amended to read as follows:

"D) As used in this Article 1.6, (a) "Marketable Securities" means securities meeting all of the following requirements: (i) the issuer thereof is then subject to the reporting requirements of Section 13 or Section 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and is then current in its filing of all required reports and other information under the Act and the Exchange Act; (ii) the class and series of shares or other security of the issuer that would be received by Holder in connection with the Acquisition were Holder to exercise or convert this Warrant on or prior to the closing thereof is then traded on a national securities exchange or over-the-counter market, and (iii) Holder would not be restricted by contract or by applicable federal and state securities laws from publicly re-selling, at any point within six (6) months and one day following the closing of such Acquisition, all of the issuer's shares and/or other securities that would be received by Holder in such Acquisition were Holder to exercise or convert this Warrant in full on or prior to the closing of such Acquisition; and (b) "Affiliate" shall mean any person or entity that owns or controls directly or indirectly ten percent (10%) or more of the stock of Company, any person or entity that controls or is controlled by or is under common control with such persons or entities, and each of such person's or entity's officers, directors, joint venturers or partners, as applicable."

2. Counterparts. This Amendment may be executed in any number of counterparts and all of such counterparts taken together shall be deemed to constitute one and the same instrument.

3. Savings. Except as expressly set forth herein, the terms and conditions of the Warrant remain in full force and effect.

4. Governing Law. This Amendment and the rights and obligations of the parties hereto shall be governed by and construed in accordance with the laws of the State of California.

IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be duly executed and delivered as of the date first written above.

BANK

SVB FINANCIAL GROUP

By: /s/ R. Michael White
Name: R. Michael White
Title: SRM

BORROWER

FATE THERAPEUTICS, INC.

By: /s/ Scott Wolchko
Name: Scott Wolchko
Title: Chief Financial Officer

THIS WARRANT AND THE SHARES ISSUABLE HEREUNDER HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "ACT"), OR THE SECURITIES LAWS OF ANY STATE AND, EXCEPT AND PURSUANT TO THE PROVISIONS OF ARTICLE 5 BELOW, MAY NOT BE OFFERED, SOLD OR OTHERWISE TRANSFERRED, PLEDGED OR HYPOTHECATED UNLESS AND UNTIL REGISTERED UNDER SAID ACT AND APPLICABLE STATE SECURITIES LAW OR, IN THE OPINION OF LEGAL COUNSEL IN FORM AND SUBSTANCE SATISFACTORY TO THE ISSUER OF THESE SECURITIES, SUCH OFFER, SALE OR TRANSFER, PLEDGE OR HYPOTHECATION IS EXEMPT FROM REGISTRATION.

WARRANT TO PURCHASE STOCK

Company: Fate Therapeutics, Inc., a Delaware corporation
Number of Shares: As set forth below
Class of Stock: As set forth below
Warrant Price: As set forth below
Issue Date: August 25, 2011
Expiration Date: August 25, 2021
Credit Facility: This Warrant is issued in connection with that second Amendment to the Loan and Security Agreement of even date herewith to the Loan and Security Agreement, dated January 5, 2009, as amended by Amendment No. 1 dated May 4, 2010, between Silicon Valley Bank and the Company.

THIS WARRANT CERTIFIES THAT, for good and valuable consideration, SILICON VALLEY BANK (Silicon Valley Bank, together with any successor or permitted assignee or transferee of this Warrant or of any shares issued upon exercise hereof, is referred to hereinafter as "Holder") is entitled to purchase the number of fully paid and non-assessable shares (the "Shares") of the above-stated Class of Stock (the "Class") of the above-named company (the "Company") at the above-stated Warrant Price, all as set forth above and as adjusted pursuant to Article 2 of this Warrant, subject to the provisions and upon the terms and conditions set forth in this Warrant.

A. Number and Class of Shares; Warrant Price.

(1) Certain Definitions. As used herein, the following definitions have the respective meanings set forth below:

"Acquisition" has the meaning given in Section 1.6.1 below.

"IPO" means the Company's initial, underwritten offering and sale of its shares to the public pursuant to an effective registration statement under the Securities Act of 1933, as amended.

"Qualified Financing" means the first sale or issuance by the Company after the Issue Date of this Warrant set forth above, in a single transaction or series of related transactions, of shares of its convertible preferred stock or other senior equity securities to one or more investors for cash for financing purposes.

"Qualified Financing Securities" means the class and series of convertible preferred stock or other senior equity security sold or issued by the Company in the Qualified Financing.

"Qualified Financing Price" means the lowest price per share for which Qualified Financing Securities are sold or issued by the Company in the Qualified Financing.

"Series B Price" means $2.00, subject to adjustment from time to time upon the occurrence of events described in Article 2 hereof.

"Series B Stock" shall mean the Company's Series B Preferred Stock, $0.001 par value per share, and any securities of the Company into or for which the outstanding shares of Series B Preferred Stock may be converted, reclassified, reorganized or exchanged.

(2) Class of Shares. The class and series of the Company's capital stock for which this Warrant shall be exercisable (the "Class") shall be Qualified Financing Securities; provided, that if the Qualified Financing shall not have been consummated, for any reason or no reason, on or before August 31, 2012, then the "Class" shall be Series B Stock from and after such date; provided, further, that if, prior to both August 31, 2012 and the consummation of the Qualified Financing, there shall be an Acquisition or IPO, then "Class" shall be Series B Stock as of immediately prior to (i) the effectiveness of the registration statement filed in connection with the IPO, or (ii) the closing of the Acquisition, as the case may be.

(3) Warrant Price. The purchase price per Share hereunder (the "Warrant Price") shall be the Qualified Financing Price; provided, that if the Qualified Financing shall not have been consummated, for any reason or no reason, on or before August 31, 2012, then the "Warrant Price" shall be the Series B Price from and after such date; provided, further, that if, prior to both August 31, 2012 and the consummation of the Qualified Financing, there shall be an Acquisition or IPO, then the "Warrant Price" shall be the Series B Price as of immediately prior to (i) the effectiveness of the registration statement filed in connection with the IPO, or (ii) the closing of the Acquisition, as the case may be; and in any event subject to further adjustment thereafter from time to time in accordance with the provisions of this Warrant.

(4) Number of Shares. This Warrant shall be exercisable for such number of shares of the Class as shall equal (a) $200,000, divided by (b) the applicable Warrant Price as determined in accordance with paragraph A(3) above, and subject to adjustment from time to time in accordance with the provisions of this Warrant.

ARTICLE 1. EXERCISE.

1.1 Method of Exercise. Holder may exercise this Warrant by delivering the original of this Warrant together with a duly executed Notice of Exercise in substantially the form attached as Appendix 1 to the principal office of the Company. Unless Holder is exercising the conversion right set forth in Article 1.2, Holder shall also deliver to the Company a check, wire transfer (to an account designated by the Company), or other form of payment acceptable to the Company for the aggregate Warrant Price for the Shares being purchased.

1.2 Conversion Right. In lieu of exercising this Warrant as specified in Article 1.1, Holder may from time to time convert this Warrant, in whole or in part, into a number of Shares determined by dividing (a) the aggregate fair market value of the Shares or other securities otherwise issuable upon exercise of this Warrant minus the aggregate Warrant Price of such Shares by (b) the fair market value of one Share. The fair market value of the Shares shall be determined pursuant to Article 1.3.

1.3 Fair Market Value. If the Company's common stock is traded in a public market and the Shares are common stock, the fair market value of a Share shall be the closing price of a share of common stock reported for the business day immediately before Holder delivers this Warrant together with its Notice of Exercise to the Company (or in the instance where the Warrant is exercised immediately prior to the effectiveness of the IPO, the "price to public" per share price specified in the final prospectus relating to such offering). If the Company's common stock is traded in a public market and the Shares are preferred stock, the fair market value of a Share shall be the closing price of a share of the Company's common stock reported for the business day immediately before Holder delivers this Warrant together with its Notice of Exercise to the Company (or, in the instance where the Warrant is exercised immediately prior to the effectiveness of the IPO, the initial "price to public" per share price specified in the final prospectus relating to such offering), in both cases, multiplied by the number of shares of the Company's common stock into which a Share is convertible. If the Company's common stock is not traded in a public market, the Board of Directors of the Company shall determine fair market value in its reasonable good faith judgment.

1.4 Delivery of Certificate and New Warrant. Promptly after Holder exercises or converts this Warrant and, if applicable, the Company receives payment of the aggregate Warrant Price, the Company shall deliver to Holder certificates for the Shares acquired and, if this Warrant has not been fully exercised or converted and has not expired, a new Warrant representing the Shares not so acquired.

1.5 Replacement of Warrants. On receipt of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant and, in the case of loss, theft or destruction, on delivery of an indemnity agreement reasonably satisfactory in form and amount to the Company or, in the case of mutilation, on surrender and cancellation of this Warrant, the Company shall execute and deliver, in lieu of this Warrant, a new warrant of like tenor.

1.6 Treatment of Warrant Upon Acquisition of Company.

1.6.1 "Acquisition". For the purpose of this Warrant, "Acquisition" means any sale, license, or other disposition of all or substantially all of the assets of the Company, or any reorganization, consolidation, merger or sale of outstanding capital stock of the Company where the holders of the Company's securities before the transaction beneficially own less than a majority of the outstanding voting securities of the surviving entity after the transaction.

1.6.2 Treatment of Warrant at Acquisition.

A) Upon the written request of the Company, Holder agrees that, in the event of an Acquisition in which the sole consideration is cash and/or Marketable Securities, either (a) Holder shall exercise its conversion or purchase right under this Warrant and such exercise will be deemed effective immediately prior to the consummation of such Acquisition or (b) if Holder elects not to exercise the Warrant, this Warrant will expire upon the consummation of such Acquisition. The Company shall provide the Holder with written notice of its request relating to the foregoing (together with such reasonable information as the Holder may request in connection with such contemplated Acquisition giving rise to such notice), which is to be delivered to Holder not less than ten (10) days prior to the closing of the proposed Acquisition.

B) Upon the written request of the Company, Holder agrees that, in the event of an Acquisition that is an "arms length" sale of all or substantially all of the Company's assets (and only its assets) to a third party that is not an Affiliate (as defined below) of the Company (a "True Asset Sale"), either (a) Holder shall exercise its conversion or purchase right under this Warrant and such exercise will be deemed effective immediately prior to the consummation of such Acquisition or (b) if Holder elects not to exercise the Warrant, this Warrant will continue until the Expiration Date if the Company continues as a going concern following the closing of any such True Asset Sale. The Company shall provide the Holder with written notice of its request relating to the foregoing (together with such reasonable information as the Holder may request in connection with such contemplated Acquisition giving rise to such notice), which is to be delivered to Holder not less than ten (10) days prior to the closing of the proposed Acquisition.

C) Upon the closing of any Acquisition other than those particularly described in subsections (A) and (B) above, the successor entity shall assume the obligations of this Warrant, and this Warrant shall be exercisable for the same securities, cash, and property as would be payable for the Shares issuable upon exercise of the unexercised portion of this Warrant as if such Shares were outstanding on the record date for the Acquisition and subsequent closing. The Warrant Price and/or number of Shares shall be adjusted accordingly.

D) As used in this Article 1.6, (a) "Marketable Securities" means securities meeting all of the following requirements: (i) the issuer thereof is then subject to the reporting requirements of Section 13 or Section 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and is then current in its filing of all required reports and other information under the Act and the Exchange Act; (ii) the class and series of shares or other security of the issuer that would be received by Holder in connection with the Acquisition were Holder to exercise or convert this Warrant on or prior to the closing thereof is then traded on a national securities exchange or over-the-counter market, and (iii) Holder would not be restricted by contract or by applicable federal and state securities laws from publicly re-selling, within six (6) months and one day following the closing of such Acquisition, all of the issuer's shares and/or other securities that would be received by Holder in such Acquisition were Holder to exercise or convert this Warrant in full on or prior to the closing of such Acquisition; and (b) "Affiliate" shall mean any person or entity that owns or controls directly or indirectly ten percent (10%) or more of the stock of Company, any person or entity that controls or is controlled by or is under common control with such persons or entities, and each of such person's or entity's officers, directors, joint venturers or partners, as applicable.

ARTICLE 2. ADJUSTMENTS TO THE SHARES.

2.1 Stock Dividends, Splits, Etc. If the Company declares or pays a dividend on the outstanding shares of the Class payable in common stock or other securities, then upon exercise of this Warrant, for each Share acquired, Holder shall receive, without cost to Holder, the total number and kind of securities to which Holder would have been entitled had Holder owned the Shares of record as of the date the dividend occurred. If the Company subdivides the outstanding shares of the Class by reclassification or otherwise into a greater number of shares, the number of Shares purchasable hereunder shall be proportionately increased and the Warrant Price shall be proportionately decreased. If the outstanding shares of the Class are combined or consolidated, by reclassification or otherwise, into a lesser number of shares, the Warrant Price shall be proportionately increased and the number of Shares shall be proportionately decreased.

2.2 Reclassification, Exchange, Combinations or Substitution. Upon any reclassification, exchange, substitution, or other event that results in a change of the number and/or class of the securities issuable upon exercise or conversion of this Warrant, Holder shall be entitled to receive, upon exercise or conversion of this Warrant, the number and kind of securities and property that Holder would have received for the Shares if this Warrant had been exercised immediately before such reclassification, exchange, substitution, or other event, and the Warrant Price shall be proportionately adjusted. Such an event shall include, without limitation, any automatic conversion of the outstanding or issuable securities of the Company of the same class or series as the Shares to common stock pursuant to the terms of the Company's Certificate of Incorporation. The Company or its successor shall promptly issue to Holder an amendment to this Warrant setting forth the number and kind of such new securities or other property issuable upon exercise or conversion of this Warrant as a result of such reclassification, exchange, substitution or other event that results in a change of the number and/or class of securities issuable upon exercise or conversion of this Warrant. The amendment to this Warrant shall provide for adjustments which shall be as nearly equivalent as may be practicable to the adjustments provided for in this Article 2 including, without limitation, adjustments to the Warrant Price and to the number of securities or property issuable upon exercise of the new Warrant. The provisions of this Article 2.2 shall similarly apply to successive reclassifications, exchanges, substitutions, or other events.

2.3 Adjustments for Diluting Issuances. The number of shares of common stock issuable upon conversion of the Shares shall be subject to adjustment, from time to time in the manner set forth in the Company's Certificate of Incorporation as if the Shares were issued and outstanding on and as of the date of any such required adjustment. The provisions set forth for the Class in the Company's Certificate of Incorporation relating to the above in effect as of the Issue Date may not be amended, modified or waived, without the prior written consent of Holder unless such amendment, modification or waiver affects the rights associated with the Shares in the same manner as such amendment, modification or waiver affects the rights associated with all other shares of the Class.

2.4 No Impairment. The Company shall not, by amendment of its Certificate of Incorporation or through a reorganization, transfer of assets, consolidation, merger, dissolution, issue, or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms to be observed or performed under this Warrant by the Company, but shall at all times in good faith assist in carrying out of all the provisions of this Article 2 and in taking all such action as may be necessary or appropriate to protect Holder's rights under this Article against impairment.

2.5 Fractional Shares. No fractional Shares shall be issuable upon exercise or conversion of the Warrant and the number of Shares to be issued shall be rounded down to the nearest whole Share. If a fractional share interest arises upon any exercise or conversion of the Warrant, the Company shall eliminate such fractional share interest by paying Holder the amount computed by multiplying the fractional interest by the fair market value of a full Share.

2.6 Certificate as to Adjustments. Upon each adjustment of the Warrant Price, Class and/or number of Shares, the Company shall promptly notify Holder in writing, and, at the Company's expense, promptly compute such adjustment, and furnish Holder with a certificate of its Chief Financial Officer setting forth such adjustment and the facts upon which such adjustment is based. The Company shall, upon written request, furnish Holder a certificate setting forth the Warrant Price, Class and number of Shares in effect upon the date thereof and the series of adjustments leading to such Warrant Price, Class and number of Shares.

ARTICLE 3. REPRESENTATIONS AND COVENANTS OF THE COMPANY.

3.1 Representations and Warranties. The Company represents and warrants to, and agrees with, the Holder as follows:

(a) The Series B Price first set forth above is not greater than the price per share at which shares of Series B Stock were last issued in an arms-length transaction in which at least $500,000 of such shares were sold.

(b) All Shares which may be issued upon the exercise of the purchase right represented by this Warrant, and all securities, if any, issuable upon conversion of the Shares, shall, upon issuance in accordance with the terms of this Warrant, be duly authorized, validly issued, fully paid and non-assessable, and free of any liens and encumbrances except for restrictions on transfer provided for herein or under applicable federal and state securities laws.

(c) The Company's capitalization table attached hereto as Schedule 1 is true and complete as of the Issue Date.

3.2 Notice of Certain Events. If the Company proposes at any time (a) to declare any dividend or distribution upon the outstanding shares of the Class, whether in cash, property, stock, or other securities and whether or not a regular cash dividend; (b) to offer for subscription or sale pro rata to the holders of the outstanding shares of the Class any additional shares of any class or series of the Company's stock (other than pursuant to contractual pre-emptive rights); (c) to effect any reclassification, reorganization or recapitalization of the shares of the Class; or (d) to effect an

Acquisition or to liquidate, dissolve or wind up; then, in connection with each such event, the Company shall give Holder: (1) at least 10 days prior written notice of the date on which a record will be taken for such dividend, distribution, or subscription rights (and specifying the date on which the holders of shares of the same class and series as the Shares will be entitled thereto) or for determining rights to vote, if any, in respect of the matters referred to in (c) and (d) above; and (2) in the case of the matters referred to in (c) and (d) above at least 10 days prior written notice of the date when the same will take place (and specifying the date on which the holders of shares of the same class and series as the Shares will be entitled to exchange their shares for the securities or other property deliverable upon the occurrence of such event).

3.3 Registration Under Securities Act of 1933, as amended. The Company agrees that the Shares or, if the Shares are convertible into common stock of the Company, such common stock, shall have certain incidental, or "Piggyback," and S-3 registration rights pursuant to and as set forth in Sections 1.4 and 1.5 (together with all other registration rights-related sections of general applicability) of the Company's Amended and Restated Investor Rights Agreement dated November 10, 2009 (as amended and/or restated from time to time, the "Rights Agreement'). The provisions set forth in the Rights Agreement relating to the foregoing registration rights in effect as of the Issue Date may not be amended, modified or waived without the prior written consent of Holder unless such amendment, modification or waiver affects the rights associated with the Shares in the same manner as such amendment, modification, or waiver affects the rights associated with all other shares of the Class whose holders are parties to the Rights Agreement.

3.4 No Shareholder Rights. Except as provided in this Warrant, Holder will not have any rights as a shareholder of the Company until the exercise of this Warrant.

3.5 Certain Information. The Company agrees to provide Holder at any time and from time to time with such information as Holder may reasonably request for purposes of Holder's compliance with regulatory, accounting and reporting requirements applicable to Holder.

ARTICLE 4. REPRESENTATIONS, WARRANTIES OF THE HOLDER. The Holder represents and warrants to the Company as follows:

4.1 Purchase for Own Account. This Warrant and the securities to be acquired upon exercise of this Warrant by Holder will be acquired for investment for Holder's account, not as a nominee or agent, and not with a view to the public resale or distribution within the meaning of the Act. Holder also represents that it has not been formed for the specific purpose of acquiring this Warrant or the Shares.

4.2 Disclosure of Information. Holder has received or has had full access to all the information it considers necessary or appropriate to make an informed investment decision with respect to the acquisition of this Warrant and its underlying securities. Holder further has had an opportunity to ask questions and receive answers from the Company regarding the terms and conditions of the offering of this Warrant and its underlying securities and to obtain additional information (to the extent the Company possessed such information or could acquire it without unreasonable effort or expense) necessary to verify any information furnished to Holder or to which Holder has access.

4.3 Investment Experience. Holder understands that the purchase of this Warrant and its underlying securities involves substantial risk. Holder has experience as an investor in securities of companies in the development stage and acknowledges that Holder can bear the economic risk of such Holder's investment in this Warrant and its underlying securities and has such knowledge and experience in financial or business matters that Holder is capable of evaluating the merits and risks of its investment in this Warrant and its underlying securities and/or has a preexisting personal or business relationship with the Company and certain of its officers, directors or controlling persons of a nature and duration that enables Holder to be aware of the character, business acumen and financial circumstances of such persons.

4.4 Accredited Investor Status. Holder is an "accredited investor" within the meaning of Regulation D promulgated under the Act.

4.5 The Act. Holder understands that this Warrant and the Shares issuable upon exercise or conversion hereof have not been registered under the Act in reliance upon a specific exemption therefrom, which exemption depends upon, among other things, the bona fide nature of the Holder's investment intent as expressed herein. Holder understands that this Warrant and the Shares issued upon any exercise or conversion hereof must be held indefinitely unless subsequently registered under the Act and qualified under applicable state securities laws, or unless exemption from such registration and qualification are otherwise available.

ARTICLE 5. MISCELLANEOUS.

5.1 Term: Subject to Article 1.6, this Warrant is exercisable in whole or in part at any time and from time to time on or before the Expiration Date.

5.2 Legends. This Warrant and the Shares (and the securities issuable, directly or indirectly, upon conversion of the Shares, if any) shall be imprinted with a legend in substantially the following form:

> THIS WARRANT AND THE SHARES ISSUABLE HEREUNDER HAVE NOT BEEN REGISTERED UNDER THE ACT, OR THE SECURITIES LAWS OF ANY STATE AND, EXCEPT AND PURSUANT TO THE PROVISIONS OF ARTICLE 5 OF THAT CERTAIN WARRANT TO PURCHASE STOCK ISSUED BY THE COMPANY TO SILICON VALLEY BANK DATED AS OF AUGUST 25, 2011, MAY NOT BE OFFERED, SOLD OR OTHERWISE TRANSFERRED, PLEDGED OR HYPOTHECATED UNLESS AND UNTIL REGISTERED UNDER SAID ACT AND APPLICABLE STATE SECURITIES LAW OR, IN THE OPINION OF LEGAL COUNSEL IN FORM AND SUBSTANCE SATISFACTORY TO THE ISSUER OF THESE SECURITIES, SUCH OFFER, SALE OR TRANSFER, PLEDGE OR HYPOTHECATION IS EXEMPT FROM REGISTRATION.

5.3 Compliance with Securities Laws on Transfer. This Warrant and the Shares issuable upon exercise of this Warrant (and the securities issuable, directly or indirectly, upon conversion of the Shares, if any) may not be transferred or assigned

in whole or in part without compliance with applicable federal and state securities laws by the transferor and the transferee (including, without limitation, the delivery of investment representation letters and legal opinions reasonably satisfactory to the Company, as reasonably requested by the Company). The Company shall not require Holder to provide an opinion of counsel if the transfer is to SVB Financial Group (Silicon Valley Bank's parent company) or any other affiliate of Holder, provided that any such transferee is an "accredited investor" as defined in Regulation D promulgated under the Act.

5.4 Transfer Procedure. After receipt by Silicon Valley Bank ("Bank") of the executed Warrant, Bank will transfer all of this Warrant to SVB Financial Group, Holder's parent company. Subject to the provisions of Article 5.3 and upon providing the Company with written notice, SVB Financial Group and any subsequent Holder may transfer all or part of this Warrant or the Shares issuable upon exercise of this Warrant (or the securities issuable directly or indirectly, upon conversion of the Shares, if any) to any transferee, provided, however, in connection with any such transfer, SVB Financial Group or any subsequent Holder will give the Company notice of the portion of the Warrant being transferred with the name, address and taxpayer identification number of the transferee and Holder will surrender this Warrant to the Company for reissuance to the transferee(s) (and Holder if applicable). The Company may refuse to transfer this Warrant or the Shares to any person who directly competes with the Company, unless, in either case, the stock of the Company is publicly traded.

5.5 Notices. All notices and other communications from the Company to the Holder, or vice versa, shall be deemed delivered and effective when given personally or mailed by first-class registered or certified mail, postage prepaid (or on the first business day after transmission by facsimile), at such address as may have been furnished to the Company or Holder, as the case may be, in writing by the Company or such holder from time to time. All notices to Holder shall be addressed as follows until the Company receives notice of a change of address in connection with a transfer or otherwise:

SVB Financial Group
Attn: Treasury Department
3003 Tasman Drive, HA 200
Santa Clara, CA 95054
Telephone: 408-654-7400
Facsimile: 408-496-2405

Notice to the Company shall be addressed as follows until Holder receives notice of a change in address:

Fate Therapeutics, Inc.
Attn: Chief Financial Officer
3535 General Atomics Court, Suite 200,
San Diego, CA 92121
Facsimile: 206-674-3026

5.6 Waiver. This Warrant and any term hereof may be changed, waived, discharged or terminated only by an instrument in writing signed by the party against which enforcement of such change, waiver, discharge or termination is sought.

5.7 Attorney's Fees. In the event of any dispute between the parties concerning the terms and provisions of this Warrant, the party prevailing in such dispute shall be entitled to collect from the other party all costs incurred in such dispute, including reasonable attorneys' fees.

5.8 Automatic Conversion upon Expiration. In the event that, upon the Expiration Date, the fair market value of one Share (or other security issuable upon the exercise hereof) as determined in accordance with Article 1.3 above is greater than the Warrant Price in effect on such date, then this Warrant shall automatically be deemed on and as of such date to be converted pursuant to Article 1.2 above as to all Shares (or such other securities) for which it shall not previously have been exercised or converted, and the Company shall promptly deliver a certificate representing the Shares (or such other securities) issued upon such conversion to Holder.

5.9 Counterparts. This Warrant may be executed in counterparts, all of which together shall constitute one and the same agreement.

5.10 Governing Law. This Warrant shall be governed by and construed in accordance with the laws of the State of California, without giving effect to its principles regarding conflicts of law.

5.11 Market Standoff. Holder agrees in connection with the IPO that, upon request of the underwriters managing such IPO, Holder shall not to sell, make any short sale of, loan, pledge or otherwise hypothecate or encumber, grant any option for the purchase of, or otherwise dispose of any Registrable Securities (as defined in the Rights Agreement) (other than those included in the registration) without the prior written consent of such underwriters, as the case may be, for such period of time (not to exceed 180 days, but subject to such extension(s) as may be required by the underwriters in order to publish research reports while complying with Rule 2711 of the National Association of Securities Dealers, Inc.) as may be requested by such managing underwriters; provided, that all directors, officers and holders of one percent (1%) or more of the Company's outstanding capital stock are similarly bound; and provided further that any early release of any then-current or former officer or director or holder of one percent (1%) or more of the Company's outstanding capital stock from market standoff agreements similar to the foregoing is apportioned pro rata among all securityholders bound by such market standoff agreements.

IN WITNESS WHEREOF, the parties hereto have caused this Warrant to be duly executed and delivered as of the date first written above.

"COMPANY"

FATE THERAPEUTICS, INC.

By: /s/ Scott Wolchko

Name: Scott Wolchko
(Print)
Title: CFO

"HOLDER"

SILICON VALLEY BANK

By: /s/ R. Michael White

Name: R. Michael White
(Print)
Title: SRM

EXHIBIT 10.1

FATE THERAPEUTICS, INC.

2007 EQUITY INCENTIVE PLAN

1. Purposes of the Plan. The purposes of the Fate Therapeutics, Inc. 2007 Equity Incentive Plan are to attract and retain the best available personnel for positions of substantial responsibility, to provide additional incentive to Employees, Directors and Consultants and to promote the success of the Company's business. Options granted under the Plan may be Incentive Stock Options or Non-Qualified Stock Options, as determined by the Administrator at the time of grant. Stock Purchase Rights may also be granted under the Plan.

2. Definitions. As used herein, the following definitions shall apply:

(a) "Change of Control" means (i) the liquidation, dissolution or winding up of the Company; (ii) the acquisition of the Company by means of any transaction or series of related transactions (including, without limitation, any reorganization, merger, share exchange or consolidation) provided that the applicable transaction shall not be deemed a Change of Control unless the Company's stockholders constituted immediately prior to such transaction hold less than fifty percent (50%) of the voting power of the surviving or acquiring entity; or (iii) the sale, conveyance or other disposal of all or substantially all of the property or business of the Company; provided that a Change of Control shall not include (x) a merger or consolidation with a wholly-owned subsidiary of the Company, (y) a merger effected exclusively for the purpose of changing the domicile of the Company or (z) any transaction or series of related transactions principally for bona fide equity financing purposes in which the Company is the surviving corporation.

(b) "Administrator" means the Board or the Committee responsible for conducting the general administration of the Plan, as applicable, in accordance with Section 4 hereof.

(c) "Applicable Laws" means the requirements relating to the administration of stock option plans under U.S. state corporate laws, U.S. federal and state securities laws, the Code, any stock exchange or quotation system on which the Common Stock is listed or quoted and the applicable laws of any foreign country or jurisdiction where Options or Stock Purchase Rights are granted under the Plan.

(d) "Board" means the Board of Directors of the Company.

(e) "Code" means the Internal Revenue Code of 1986, as amended, or any successor statute or statutes thereto. Reference to any particular Code section shall include any successor section.

(f) "Committee" means a committee appointed by the Board in accordance with Section 4 hereof.

(g) "Common Stock" means the common stock of the Company.

(h) "Company" means Fate Therapeutics, Inc., a Delaware corporation.

(i) "Consultant" means any consultant or adviser if: (i) the consultant or adviser renders *bona fide* services to the Company or any Parent or Subsidiary of the Company; (ii) the services rendered by the consultant or adviser are not in connection with the offer or sale of securities in a capital-raising transaction and do not directly or indirectly promote or maintain a market for the Company's securities; and (iii) the consultant or adviser is a natural person who has contracted directly with the Company or any Parent or Subsidiary of the Company to render such services.

(j) "Director" means a member of the Board.

(k) "Employee" means any person, including an Officer or Director, who is an employee (as defined in accordance with Section 3401(c) of the Code) of the Company or any Parent or Subsidiary of the Company. A Service Provider shall not cease to be an Employee in the case of (i) any leave of absence approved by the Company or (ii) transfers between locations of the Company or between the Company, its Parent, any Subsidiary, or any successor. For purposes of Incentive Stock Options, no such leave may exceed ninety (90) days, unless reemployment upon expiration of such leave is guaranteed by statute or contract. Neither service as a Director nor payment of a director's fee by the Company shall be sufficient, by itself, to constitute "employment" by the Company.

(l) "Equity Restructuring" shall mean a non-reciprocal transaction between the Company and its stockholders, such as a stock dividend, stock split, spin-off, rights offering or recapitalization through a large, nonrecurring cash dividend, that affects the shares of Common Stock (or other securities of the Company) or the share price of Common Stock (or other securities) and causes a change in the per share value of the Common Stock underlying outstanding Awards.

(m) "Exchange Act" means the Securities Exchange Act of 1934, as amended, or any successor statute or statutes thereto. Reference to any particular Exchange Act section shall include any successor section.

(n) "Fair Market Value" means, as of any date, the value of a share of Common Stock determined as follows:

(i) If the Common Stock is listed on any established stock exchange or a national market system, its Fair Market Value shall be the closing sales price for a share of such stock (or the closing bid, if no sales were reported) as quoted on such exchange or system for such date, or if no bids or sales were reported for such date, then the closing sales price (or the closing bid, if no sales were reported) on the trading date immediately prior to such date during which a bid or sale occurred, in each case, as reported in *The Wall Street Journal* or such other source as the Administrator deems reliable;

(ii) If the Common Stock is regularly quoted by a recognized securities dealer but selling prices are not reported, its Fair Market Value shall be the mean between the high bid and low asked prices for a share of the Common Stock on such date, or if no closing bid and asked prices were reported for such date, the date immediately prior to such date during which closing bid and asked prices were quoted for such Common Stock, in each case, as reported in *The Wall Street Journal* or such other source as the Administrator deems reliable; or

(iii) In the absence of an established market for the Common Stock, the Fair Market Value thereof shall be determined in good faith by the Administrator based on the reasonable application of a reasonable valuation method not inconsistent with Section 409A.

(o) "Holder" means a person who has been granted or awarded an Option or Stock Purchase Right or who holds Shares acquired pursuant to the exercise of an Option or Stock Purchase Right.

(p) "Incentive Stock Option" means an Option intended to qualify as an incentive stock option within the meaning of Section 422 of the Code and which is designated as an Incentive Stock Option by the Administrator.

(q) "Independent Director" means a Director who is not an Employee of the Company.

(r) "Non-Qualified Stock Option" means an Option (or portion thereof) that is not designated as an Incentive Stock Option by the Administrator, or which is designated as an Incentive Stock Option by the Administrator but fails to qualify as an incentive stock option within the meaning of Section 422 of the Code.

(s) "Officer" means a person who is an officer of the Company within the meaning of Section 16 of the Exchange Act and the rules and regulations promulgated thereunder.

(t) "Option" means a stock option granted pursuant to the Plan.

(u) "Option Agreement" means a written agreement between the Company and a Holder evidencing the terms and conditions of an individual Option grant. The Option Agreement is subject to the terms and conditions of the Plan.

(v) "Parent" means any corporation (or other entity), whether now or hereafter existing (other than the Company), in an unbroken chain of corporations (or other entities) ending with the Company if each of the corporations (or other entities) other than the last corporation (or other entity) in the unbroken chain owns stock (or other equity interest) possessing more than fifty percent of the total combined voting power of all classes of stock (or other equity interest) in one of the other corporations (or other entities) in such chain.

(w) "Plan" means the Fate Therapeutics, Inc. 2007 Equity Incentive Plan.

(x) "Public Trading Date" means the first date upon which Common Stock of the Company is listed (or approved for listing) upon notice of issuance on any securities exchange or designated (or approved for designation) upon notice of issuance as a national market security on an interdealer quotation system.

(y) "Restricted Stock" means Shares acquired pursuant to the exercise of an unvested Option in accordance with Section 10(h) below or pursuant to a Stock Purchase Right granted under Section 12 below.

(z) "Rule 16b-3" means that certain Rule 16b-3 under the Exchange Act, as such Rule may be amended from time to time.

(aa) "Section 16(b)" means Section 16(b) of the Exchange Act, as such Section may be amended from time to time.

(bb) "Section 409A" means Section 409A of the Code and the regulations and other guidance promulgated thereunder.

(cc) "Securities Act" means the Securities Act of 1933, as amended, or any successor statute or statutes thereto. Reference to any particular Securities Act section shall include any successor section.

(dd) "Service Provider" means an Employee, Director or Consultant.

(ee) "Share" means a share of Common Stock, as adjusted in accordance with Section 13 below.

(ff) "Stock Purchase Right" means a right to purchase Common Stock pursuant to Section 12 below.

(gg) "Subsidiary" means any corporation (or other entity), whether now or hereafter existing (other than the Company), in an unbroken chain of corporations (or other entities) beginning with the Company if each of the corporations (or other entities) other than the last corporation (or other entity) in the unbroken chain owns stock possessing more than fifty percent of the total combined voting power of all classes of stock in one of the other corporations (or other entities) in such chain.

3. Stock Subject to the Plan. Subject to the provisions of Section 13 of the Plan, the shares of stock subject to Options or Stock Purchase Rights shall be Common Stock. Subject to the provisions of Section 13 of the Plan, the maximum aggregate number of Shares which may be issued upon exercise of such Options or Stock Purchase Rights is Fourteen Million Three Hundred Forty Nine Thousand Nine Hundred Seventy Four (14,349,974) Shares. Shares issued upon exercise of Options or Stock Purchase Rights may be authorized but unissued, or reacquired Common Stock. If an Option or Stock Purchase Right expires or becomes unexercisable without having been exercised in full, the unpurchased Shares which were subject thereto shall become available for future grant or sale under the Plan (unless the Plan has terminated). Shares which are delivered by the Holder or withheld by the Company upon the exercise of an Option or Stock Purchase Right under the Plan, in payment of the exercise price thereof or tax withholding thereon, may again be optioned,

granted or awarded hereunder, subject to the limitations of this Section 3. If Shares of Restricted Stock are repurchased by the Company at their original purchase price, such Shares shall become available for future grant under the Plan (unless the Plan has terminated). Notwithstanding the provisions of this Section 3, no Shares may again be optioned, granted or awarded if such action would cause an Incentive Stock Option to fail to qualify as an Incentive Stock Option under Code Section 422.

4. Administration of the Plan.

(a) Administrator. Unless and until the Board delegates administration to a Committee as set forth below, the Plan shall be administered by the Board. The Board may delegate administration of the Plan to a Committee or Committees of one or more members of the Board, and the term "Committee" shall apply to any person or persons to whom such authority has been delegated. If administration is delegated to a Committee, the Committee shall have, in connection with the administration of the Plan, the powers theretofore possessed by the Board, including the power to delegate to a subcommittee any of the administrative powers the Committee is authorized to exercise (and references in this Plan to the Board 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. Notwithstanding the foregoing, however, from and after the Public Trading Date, a Committee of the Board shall administer the Plan and the Committee shall consist solely of two or more Independent Directors each of whom is an "outside director," within the meaning of Section 162(m) of the Code, a "non-employee director" within the meaning of Rule 16b-3, and qualifies as "independent" within the meaning of any applicable stock exchange listing requirements. Members of the Committee shall also satisfy any other legal requirements applicable to membership on the Committee, including requirements under the Sarbanes-Oxley Act of 2002 and other Applicable Laws. Within the scope of such authority, the Board or the Committee may (i) delegate to a committee of one or more members of the Board who are not Independent Directors the authority to grant awards under the Plan to eligible persons who are either (1) not then "covered employees," within the meaning of Section 162(m) of the Code and are not expected to be "covered employees" at the time of recognition of income resulting from such award or (2) not persons with respect to whom the Company wishes to comply with Section 162(m) of the Code and/or (ii) delegate to a committee of one or more members of the Board who are not "non-employee directors," within the meaning of Rule 16b-3, the authority to grant awards under the Plan to eligible persons who are not then subject to Section 16 of the Exchange Act. The Board may abolish the Committee at any time and revest in the Board the administration of the Plan. Appointment of Committee members shall be effective upon acceptance of appointment. Committee members may resign at any time by delivering written notice to the Board. Vacancies in the Committee may only be filled by the Board.

(b) Powers of the Administrator. Subject to the provisions of the Plan and the specific duties delegated by the Board to such Committee, and subject to the approval of any relevant authorities, the Administrator shall have the authority in its sole discretion:

(i) to determine the Fair Market Value;

(ii) to select the Service Providers to whom Options and Stock Purchase Rights may from time to time be granted hereunder;

(iii) to determine the number of Shares to be covered by each such award granted hereunder;

(iv) to approve forms of agreement for use under the Plan;

(v) to determine the terms and conditions of any Option or Stock Purchase Right granted hereunder (such terms and conditions include, but are not limited to, the exercise price, the time or times when Options or Stock Purchase Rights may vest or be exercised (which may be based on performance criteria), any vesting acceleration or waiver of forfeiture restrictions, and any restriction or limitation regarding any Option or Stock Purchase Right or the Common Stock relating thereto, based in each case on such factors as the Administrator, in its sole discretion, shall determine);

(vi) to determine whether to offer to buyout a previously granted Option as provided in subsection 10(i) and to determine the terms and conditions of such offer and buyout (including whether payment is to be made in cash or Shares);

(vii) to prescribe, amend and rescind rules and regulations relating to the Plan, including rules and regulations relating to sub-plans established for the purpose of qualifying for preferred tax treatment under foreign tax laws;

(viii) to allow Holders to satisfy withholding tax obligations by electing to have the Company withhold from the Shares to be issued upon exercise of an Option or Stock Purchase Right that number of Shares having a Fair Market Value equal to the minimum amount required to be withheld based on the statutory withholding rates for federal and state tax purposes that apply to supplemental taxable income. The Fair Market Value of the Shares to be withheld shall be determined on the date that the amount of tax to be withheld is to be determined. All elections by Holders to have Shares withheld for this purpose shall be made in such form and under such conditions as the Administrator may deem necessary or advisable;

(ix) to amend the Plan or any Option or Stock Purchase Right granted under the Plan as provided in Section 15; and

(x) to construe and interpret the terms of the Plan and awards granted pursuant to the Plan and to exercise such powers and perform such acts as the Administrator deems necessary or desirable to promote the best interests of the Company which are not in conflict with the provisions of the Plan.

(c) Effect of Administrator's Decision. All decisions, determinations and interpretations of the Administrator shall be final and binding on all Holders.

5. Eligibility. Non-Qualified Stock Options and Stock Purchase Rights may be granted to Service Providers. Incentive Stock Options may be granted only to Employees. If otherwise eligible, a Service Provider who has been granted an Option or Stock Purchase Right may be granted additional Options or Stock Purchase Rights.

6. Limitations.

(a) Each Option shall be designated by the Administrator in the Option Agreement as either an Incentive Stock Option or a Non-Qualified Stock Option. However, notwithstanding such designations, to the extent that the aggregate Fair Market Value of Shares subject to a Holder's Incentive Stock Options and other incentive stock options granted by the Company, any Parent or Subsidiary, which become exercisable for the first time during any calendar year (under all plans of the Company or any Parent or Subsidiary) exceeds $100,000, such excess Options or other options shall be treated as Non-Qualified Stock Options.

For purposes of this Section 6(a), Incentive Stock Options shall be taken into account in the order in which they were granted, and the Fair Market Value of the Shares shall be determined as of the time of grant.

(b) Neither the Plan, any Option nor any Stock Purchase Right shall confer upon a Holder any right with respect to continuing the Holder's employment or consulting relationship with the Company, nor shall they interfere in any way with the Holder's right or the Company's right to terminate such employment or consulting relationship at any time, with or without cause.

(c) No Service Provider shall be granted, in any calendar year, Options or Stock Purchase Rights to purchase more than Fourteen Million Three Hundred Forty Nine Thousand Nine Hundred Seventy Four (14,349,974) shares; *provided, however,* that the foregoing limitation shall not apply prior to the Public Trading Date and, following the Public Trading Date, the foregoing limitation shall not apply until the earliest of: (i) the first material modification of the Plan (including any increase in the number of shares reserved for issuance under the Plan in accordance with Section 3); (ii) the issuance of all of the shares of Common Stock reserved for issuance under the Plan; (iii) the expiration of the Plan; (iv) the first meeting of stockholders at which Directors of the Company are to be elected that occurs after the close of the third calendar year following the calendar year in which occurred the first registration of an equity security of the Company under Section 12 of the Exchange Act; or (v) such other date required by Section 162(m) of the Code and the rules and regulations promulgated thereunder. The foregoing limitation shall be adjusted equitably or proportionately in connection with any change in the Company's capitalization as described in Section 13. For purposes of this Section 6(c), if an Option is canceled in the same calendar year it was granted (other than in connection with a transaction described in Section 13), the canceled Option will be counted against the limit set forth in this Section 6(c). For this purpose, if the exercise price of an Option is reduced, the transaction shall be treated as a cancellation of the Option and the grant of a new Option.

7. Term of Plan. The Plan shall become effective upon its initial adoption by the Board and shall continue in effect until it is terminated under Section 15 of the Plan. No Options or Stock Purchase Rights may be issued under the Plan after the tenth (10th) anniversary of the earlier of (i) the date upon which the Plan is adopted by the Board or (ii) the date the Plan is approved by the stockholders.

8. Term of Option. The term of each Option shall be stated in the Option Agreement; *provided*, *however*, that the term shall be no more than ten (10) years from the date of grant thereof. In the case of an Incentive Stock Option granted to a Holder who, at the time the Option is granted, owns (or is treated as owning under Code Section 424) stock representing more than ten percent (10%) of the voting power of all classes of stock of the Company or any Parent or Subsidiary, the term of the Option shall be five (5) years from the date of grant or such shorter term as may be provided in the Option Agreement.

9. Option Exercise Price and Consideration.

(a) Except as provided in Section 13, the per share exercise price for the Shares to be issued upon exercise of an Option shall be such price as is determined by the Administrator, but shall be subject to the following:

(i) In the case of an Incentive Stock Option

(A) granted to an Employee who, at the time of grant of such Option, owns (or is treated as owning under Code Section 424) stock representing more than ten percent (10%) of the voting power of all classes of stock of the Company or any Parent or Subsidiary, the per Share exercise price shall be no less than one hundred ten percent (110%) of the Fair Market Value per Share on the date of grant.

(B) granted to any other Employee, the per Share exercise price shall be no less than one hundred percent (100%) of the Fair Market Value per Share on the date of grant.

(ii) In the case of a Non-Qualified Stock Option, the per Share exercise price shall be no less than one hundred percent (100%) of the Fair Market Value per Share on the date of grant.

(iii) Notwithstanding the foregoing, an Option may be granted with a per Share exercise price other than as required above if such Option is granted as an assumption of or in substitution for another option in connection with a merger or other corporate transaction.

(b) The consideration to be paid for the Shares to be issued upon exercise of an Option, including the method of payment, shall be determined by the Administrator (and, in the case of an Incentive Stock Option, shall be determined at the time of grant). Such consideration may consist of (1) cash, (2) check, (3) with the consent of the Administrator, a full recourse promissory note bearing interest (at no less than such rate as is a market rate of interest and which then precludes the imputation of interest under the Code), payable upon such terms as may be prescribed by the Administrator, and structured to comply with Applicable Laws, (4) with the consent of the Administrator, other Shares which (x) in the case of Shares acquired

from the Company, have been owned by the Holder for more than six (6) months on the date of surrender, and (y) have a Fair Market Value on the date of surrender equal to the aggregate exercise price of the Shares as to which such Option shall be exercised, (5) with the consent of the Administrator, surrendered Shares then issuable upon exercise of the Option having a Fair Market Value on the date of exercise equal to the aggregate exercise price of the Option or exercised portion thereof, (6) with the consent of the Administrator, property of any kind which constitutes good and valuable consideration, (7) with the consent of the Administrator, delivery of a notice that the Holder has placed a market sell order with a broker with respect to Shares then issuable upon exercise of the Options and that the broker has been directed to pay a sufficient portion of the net proceeds of the sale to the Company in satisfaction of the Option exercise price, *provided*, that payment of such proceeds is then made to the Company upon settlement of such sale, or (8) with the consent of the Administrator, any combination of the foregoing methods of payment.

10. Exercise of Option.

(a) Vesting; Fractional Exercises. Except as provided in Section 13, Options granted hereunder shall be vested and exercisable according to the terms hereof at such times and under such conditions as determined by the Administrator and set forth in the Option Agreement. An Option may not be exercised for a fraction of a Share.

(b) Deliveries upon Exercise. All or a portion of an exercisable Option shall be deemed exercised upon delivery of all of the following to the Secretary of the Company, his or her office or such other authorized representative of the Company:

(i) A written or electronic notice complying with the applicable rules established by the Administrator stating that the Option, or a portion thereof, is exercised. The notice shall be signed by the Holder or other person then entitled to exercise the Option or such portion of the Option;

(ii) Such representations and documents as the Administrator, in its sole discretion, deems necessary or advisable to effect compliance with Applicable Laws. The Administrator may, in its sole discretion, also take whatever additional actions it deems appropriate to effect such compliance, including, without limitation, placing legends on share certificates and issuing stop transfer notices to agents and registrars;

(iii) Upon the exercise of all or a portion of an unvested Option pursuant to Section 10(h), a Restricted Stock purchase agreement in a form determined by the Administrator and signed by the Holder or other person then entitled to exercise the Option or such portion of the Option; and

(iv) In the event that the Option shall be exercised pursuant to Section 10(f) by any person or persons other than the Holder, appropriate proof of the right of such person or persons to exercise the Option.

(c) Conditions to Delivery of Share Certificates. The Company shall not be required to issue or deliver any certificate or certificates for Shares purchased upon the exercise of any Option or portion thereof prior to fulfillment of all of the following conditions:

(i) The admission of such Shares to listing on all stock exchanges on which such class of stock is then listed;

(ii) The completion of any registration or other qualification of such Shares under any state or federal law, or under the rulings or regulations of the Securities and Exchange Commission or any other governmental regulatory body which the Administrator shall, in its sole discretion, deem necessary or advisable;

(iii) The obtaining of any approval or other clearance from any state or federal governmental agency which the Administrator shall, in its sole discretion, determine to be necessary or advisable;

(iv) The lapse of such reasonable period of time following the exercise of the Option as the Administrator may establish from time to time for reasons of administrative convenience; and

(v) The receipt by the Company of full payment for such Shares, including payment of any applicable withholding tax, which in the sole discretion of the Administrator may be in the form of consideration used by the Holder to pay for such Shares under Section 9(b).

(d) Termination of Relationship as a Service Provider. If a Holder ceases to be a Service Provider other than by reason of the Holder's disability or death, such Holder may exercise his or her Option within such period of time as is specified in the Option Agreement to the extent that the Option is vested on the date of termination; *provided*, *however*, that prior to the Public Trading Date, to the extent required by Applicable Law, such period of time shall not be less than thirty (30) days (but in no event later than the expiration of the term of the Option as set forth in the Option Agreement). In the absence of a specified time in the Option Agreement, the Option shall remain exercisable for three (3) months following the Holder's termination. If, on the date of termination, the Holder is not vested as to his or her entire Option, the Shares covered by the unvested portion of the Option immediately cease to be issuable under the Option and shall again become available for issuance under the Plan. If, after termination, the Holder does not exercise his or her Option within the time period specified herein, the Option shall terminate, and the Shares covered by such Option shall again become available for issuance under the Plan.

(e) Disability of Holder. If a Holder ceases to be a Service Provider as a result of the Holder's disability, the Holder may exercise his or her Option within such period of time as is specified in the Option Agreement to the extent the Option is vested on the date of termination; *provided*, *however*, that prior to the Public Trading Date, to the extent required by Applicable Law, such period of time shall not be less than six (6) months (but in no event later than the expiration of the term of such Option as set forth in the Option Agreement). In the absence of a specified time in the Option Agreement, the Option shall remain exercisable for twelve (12) months following the Holder's termination. If such disability is not a "disability" as such term is defined in Section 22(e)(3) of the Code, in the case of an Incentive Stock Option such Incentive Stock Option shall automatically cease to be treated as an Incentive Stock Option and shall be treated for tax purposes as a Non-Qualified Stock Option from and after the day

which is three (3) months and one (1) day following such termination. If, on the date of termination, the Holder is not vested as to his or her entire Option, the Shares covered by the unvested portion of the Option shall immediately cease to be issuable under the Option and shall again become available for issuance under the Plan. If, after termination, the Holder does not exercise his or her Option within the time specified herein, the Option shall terminate, and the Shares covered by such Option shall again become available for issuance under the Plan.

(f) Death of Holder. If a Holder dies while a Service Provider, the Option may be exercised within such period of time as is specified in the Option Agreement; *provided*, *however*, that prior to the Public Trading Date, to the extent required by Applicable Law, such period of time shall not be less than six (6) months (but in no event later than the expiration of the term of such Option as set forth in the Option Agreement), by the Holder's estate or by a person who acquires the right to exercise the Option by bequest or inheritance, but only to the extent that the Option is vested on the date of death. In the absence of a specified time in the Option Agreement, the Option shall remain exercisable for twelve (12) months following the Holder's termination. If, at the time of death, the Holder is not vested as to his or her entire Option, the Shares covered by the unvested portion of the Option shall immediately cease to be issuable under the Option and shall again become available for issuance under the Plan. The Option may be exercised by the executor or administrator of the Holder's estate or, if none, by the person(s) entitled to exercise the Option under the Holder's will or the laws of descent or distribution. If the Option is not so exercised within the time specified herein, the Option shall terminate, and the Shares covered by such Option shall again become available for issuance under the Plan.

(g) Regulatory Extension. A Holder's Option Agreement may provide that if the exercise of the Option following the termination of the Holder's status as a Service Provider (other than upon the Holder's death or disability) would be prohibited at any time solely because the issuance of shares would violate the registration requirements under the Securities Act, then the Option shall terminate on the earlier of (i) the expiration of the term of the Option set forth in Section 8 or (ii) the expiration of a period of three (3) months after the termination of the Holder's status as a Service Provider during which the exercise of the Option would not be in violation of such registration requirements.

(h) Early Exercisability. The Administrator may provide in the terms of a Holder's Option Agreement that the Holder may, at any time before the Holder's status as a Service Provider terminates, exercise the Option in whole or in part prior to the full vesting of the Option; *provided*, *however*, that subject to Section 20, Shares acquired upon exercise of an Option which has not fully vested may be subject to any forfeiture, transfer or other restrictions as the Administrator may determine in its sole discretion.

(i) Buyout Provisions. The Administrator may at any time offer to buyout for a payment in cash or Shares, an Option previously granted, based on such terms and conditions as the Administrator shall establish and communicate to the Holder at the time that such offer is made.

11. Non-Transferability of Options and Stock Purchase Rights. Options and Stock Purchase Rights may not be sold, pledged, assigned, hypothecated, transferred, or disposed of in any manner other than by will or by the laws of descent or distribution and may be exercised, during the lifetime of the Holder, only by the Holder.

12. Stock Purchase Rights.

(a) Rights to Purchase. Stock Purchase Rights may be issued either alone, in addition to, or in tandem with Options granted under the Plan and/or cash awards made outside of the Plan. After the Administrator determines that it will offer Stock Purchase Rights under the Plan, it shall advise the offeree in writing of the terms, conditions and restrictions related to the offer, including the number of Shares that such person shall be entitled to purchase, the price to be paid, and the time within which such person must accept such offer. The offer shall be accepted by execution of a Restricted Stock purchase agreement in the form determined by the Administrator.

(b) Repurchase Right. Unless the Administrator determines otherwise, the Restricted Stock purchase agreement shall grant the Company the right to repurchase Shares acquired upon exercise of a Stock Purchase Right upon the termination of the purchaser's status as a Service Provider for any reason. Subject to Section 20, the purchase price for Shares repurchased by the Company pursuant to such repurchase right and the rate at which such repurchase right shall lapse shall be determined by the Administrator in its sole discretion, and shall be set forth in the Restricted Stock purchase agreement.

(c) Other Provisions. The Restricted Stock purchase agreement shall contain such other terms, provisions and conditions not inconsistent with the Plan as may be determined by the Administrator in its sole discretion.

(d) Rights as a Shareholder. Once the Stock Purchase Right is exercised, the purchaser shall have rights equivalent to those of a shareholder and shall be a shareholder when his or her purchase is entered upon the records of the duly authorized transfer agent of the Company. No adjustment shall be made for a dividend or other right for which the record date is prior to the date the Stock Purchase Right is exercised, except as provided in Section 13 of the Plan.

13. Adjustments upon Changes in Capitalization, Merger or Asset Sale.

(a) In the event that the Administrator determines that other than an Equity Restructuring any dividend or other distribution (whether in the form of cash, Common Stock, other securities, or other property), reorganization, merger, consolidation, combination, repurchase, liquidation, dissolution, or sale, transfer, exchange or other disposition of all or substantially all of the assets of the Company, or exchange of Common Stock or other securities of the Company, issuance of warrants or other rights to purchase Common Stock or other securities of the Company, or other similar corporate transaction or event, the Administrator shall, in such manner as it may deem equitable or proportionate, adjust any or all of:

(i) the number and kind of shares of Common Stock (or other securities or property) with respect to which Options or Stock Purchase Rights may be granted or awarded (including, but not limited to, adjustments of the limitations in Section 3 on the

maximum number and kind of shares which may be issued and adjustments of the maximum number of Shares that may be purchased by any Holder in any calendar year pursuant to Section 6(c));

(ii) the number and kind of shares of Common Stock (or other securities or property) subject to outstanding Options, Stock Purchase Rights or Restricted Stock; and

(iii) the grant or exercise price with respect to any Option or Stock Purchase Right.

(b) In the event of any transaction or event described in Section 13(a), the Administrator, in its sole discretion, and on such terms and conditions as it deems appropriate, either by the terms of the Option, Stock Purchase Right or Restricted Stock or by action taken prior to the occurrence of such transaction or event and either automatically or upon the Holder's request, is hereby authorized to take any one or more of the following actions whenever the Administrator determines that such action is appropriate in order to prevent dilution or enlargement of the benefits or potential benefits intended by the Company to be made available under the Plan or with respect to any Option, Stock Purchase Right or Restricted Stock granted or issued under the Plan or to facilitate such transaction or event:

(i) To provide for either the purchase of any such Option, Stock Purchase Right or Restricted Stock for an amount of cash equal to the amount that could have been obtained upon the exercise of such Option or Stock Purchase Right or realization of the Holder's rights had such Option, Stock Purchase Right or Restricted Stock been currently exercisable or payable or fully vested or the replacement of such Option, Stock Purchase Right or Restricted Stock with other rights or property selected by the Administrator in its sole discretion;

(ii) To provide that such Option or Stock Purchase Right shall be exercisable as to all shares covered thereby, notwithstanding anything to the contrary in the Plan or the provisions of such Option or Stock Purchase Right;

(iii) To provide that such Option, Stock Purchase Right or Restricted Stock be assumed by the successor or survivor corporation, or a parent or subsidiary thereof, or shall be substituted for by similar options, rights or awards covering the stock of the successor or survivor corporation, or a parent or subsidiary thereof, with equitable or proportionate adjustments as to the number and kind of shares and prices;

(iv) To make equitable or proportionate adjustments in the number and type of shares of Common Stock (or other securities or property) subject to outstanding Options and Stock Purchase Rights, and/or in the terms and conditions of (including the grant or exercise price), and the criteria included in, outstanding Options, Stock Purchase Rights or Restricted Stock or Options, Stock Purchase Rights or Restricted Stock which may be granted in the future; and/or

(v) To provide that immediately upon the consummation of such event, such Option or Stock Purchase Right shall not be exercisable and shall terminate;

provided, that for a specified period of time prior to such event, such Option or Stock Purchase Right shall be exercisable as to all Shares covered thereby, and the restrictions imposed under an Option Agreement or Restricted Stock purchase agreement upon some or all Shares may be terminated and, in the case of Restricted Stock, some or all shares of such Restricted Stock may cease to be subject to repurchase, notwithstanding anything to the contrary in the Plan or the provisions of such Option, Stock Purchase Right or Restricted Stock purchase agreement.

(c) In connection with the occurrence of any Equity Restructuring, and notwithstanding anything to the contrary in Section 13(a) and 13(b):

(i) The number and type of securities subject to each outstanding Option or Stock Purchase Right and the exercise price or grant price thereof, if applicable, will be equitably or proportionately adjusted. The adjustments provided under this Section 13(c)(i) shall be nondiscretionary and shall be final and binding on the affected Holder and the Company.

(ii) The Administrator shall make such equitable or proportionate adjustments to reflect such Equity Restructuring with respect to the aggregate number and kind of shares that may be issued under the Plan (including, but not limited to, adjustments of the limitations in Section 3).

(d) If the Company undergoes a Change of Control, then any surviving corporation or entity or acquiring corporation or entity, or affiliate of such corporation or entity, may assume any Options, Stock Purchase Rights or Restricted Stock outstanding under the Plan or may substitute similar stock awards (including an award to acquire the same consideration paid to the stockholders in the transaction described in this subsection 13(d)) for those outstanding under the Plan. In the event any surviving corporation or entity or acquiring corporation or entity in a Change of Control, or affiliate of such corporation or entity, does not assume such Options, Stock Purchase Rights or Restricted Stock or does not substitute similar stock awards for those outstanding under the Plan, then all outstanding Options and Stock Purchase Rights granted under the Plan shall terminate upon the effective time or consummation of such Change of Control. The Administrator may, in its sole discretion and notwithstanding anything contained in the applicable award agreement, elect to accelerate all or a portion of the vesting of any Options or Restricted Stock in connection with any Change of Control. In the event of the termination of Options and Stock Purchase Rights, each Holder shall be permitted, within a specified period of time prior to the consummation of the Change of Control as determined by the Administrator, to exercise all outstanding Options held by such Holder which are then vested and exercisable or will become vested and exercisable as of the effective time or consummation of the Change of Control.

(e) Subject to Section 3, the Administrator may, in its sole discretion, include such further provisions and limitations in any Option, Stock Purchase Right, Restricted Stock agreement or certificate, as it may deem equitable and in the best interests of the Company.

(f) The existence of the Plan, any Option Agreement or Restricted Stock purchase agreement and the Options or Stock Purchase Rights granted hereunder shall not affect or restrict in any way the right or power of the Company or the stockholders of the Company to make or authorize any adjustment, recapitalization, reorganization or other change in the

Company's capital structure or its business, any merger or consolidation of the Company, any issue of stock or of options, warrants or rights to purchase stock or of bonds, debentures, preferred or prior preference stocks whose rights are superior to or affect the Common Stock or the rights thereof or which are convertible into or exchangeable for Common Stock, or the dissolution or liquidation of the Company, or any sale or transfer of all or any part of its assets or business, or any other corporate act or proceeding, whether of a similar character or otherwise.

14. Time of Granting Options and Stock Purchase Rights. The date of grant of an Option or Stock Purchase Right shall, for all purposes, be the date on which the Administrator makes the determination granting such Option or Stock Purchase Right, or such other date as is determined by the Administrator consistent with applicable legal requirements. Notice of the determination shall be given to each Employee or Consultant to whom an Option or Stock Purchase Right is so granted within a reasonable time after the date of such grant.

15. Amendment and Termination of the Plan.

(a) Amendment and Termination. Subject to the requirements of subsection (c), the Board may at any time wholly or partially amend, alter, suspend or terminate the Plan. However, without approval of the Company's stockholders given within twelve (12) months before or after the action by the Board, no action of the Board may, except as provided in Section 13, increase the limits imposed in Section 3 on the maximum number of Shares which may be issued under the Plan or extend the term of the Plan under Section 7.

(b) Stockholder Approval. The Board shall obtain stockholder approval of any Plan amendment to the extent necessary and desirable to comply with Applicable Laws.

(c) Effect of Amendment or Termination. No amendment, alteration, suspension or termination of the Plan or any Option or Stock Purchase Right shall impair the rights of any Holder, unless mutually agreed otherwise between the Holder and the Administrator, which agreement must be in writing and signed by the Holder and the Company. Termination of the Plan shall not affect the Administrator's ability to exercise the powers granted to it hereunder with respect to Options, Stock Purchase Rights or Restricted Stock granted or awarded under the Plan prior to the date of such termination.

16. Stockholder Approval. The Plan will be submitted for the approval of the Company's stockholders within twelve (12) months after the date of the Board's initial adoption of the Plan. Options or Stock Purchase Rights may be granted prior to such stockholder approval, provided that such Options and Stock Purchase Rights shall not be exercisable, shall not vest and the restrictions thereon shall not lapse prior to the time when the Plan is approved by the stockholders, and provided further that if such approval has not been obtained at the end of said twelve-month period, all Options and Stock Purchase Rights previously granted under the Plan shall thereupon be canceled and become null and void.

17. Inability to Obtain Authority. The inability of the Company to obtain authority from any regulatory body having jurisdiction, which authority is deemed by the Company's counsel to be necessary to the lawful issuance and sale of any Shares hereunder, shall relieve the Company of any liability in respect of the failure to issue or sell such Shares as to which such requisite authority shall not have been obtained.

18. Reservation of Shares. The Company, during the term of this Plan, shall at all times reserve and keep available such number of Shares as shall be sufficient to satisfy the requirements of the Plan.

19. Information to Holders and Purchasers. Prior to the Public Trading Date and to the extent required by Applicable Law, the Company shall provide to each Holder and to each individual who acquires Shares pursuant to the Plan, not less frequently than annually during the period such Holder or purchaser has one or more Options or Stock Purchase Rights outstanding, and, in the case of an individual who acquires Shares pursuant to the Plan, during the period such individual owns such Shares, copies of annual financial statements. Notwithstanding the preceding sentence, the Company shall not be required to provide such statements to key employees whose duties in connection with the Company assure their access to equivalent information.

20. Repurchase Provisions. The Administrator in its sole discretion may provide that the Company may repurchase Shares acquired upon exercise of an Option or Stock Purchase Right upon the occurrence of certain specified events, including, without limitation, a Holder's termination as a Service Provider, divorce, bankruptcy or insolvency.

21. Rules Particular To Specific Countries. Notwithstanding anything herein to the contrary, the terms and conditions of the Plan with respect to Service Providers who are tax residents of a particular country may be subject to an addendum to the Plan in the form of an Appendix. To the extent that the terms and conditions set forth in an Appendix conflict with any provisions of the Plan, the provisions of the Appendix shall govern. The adoption of any such Appendix shall be pursuant to Section 15 above.

22. Investment Intent. The Company may require a Plan participant, as a condition of exercising or acquiring stock under any Option or Stock Purchase Right, (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 Option or Stock Purchase Right; and (ii) to give written assurances satisfactory to the Company stating that the participant is acquiring the stock subject to the Option or Stock Purchase Right for the participant's own account and not with any present intention of selling or otherwise distributing the stock. The foregoing requirements, and any assurances given pursuant to such requirements, shall be inoperative if (A) the issuance of the shares upon the exercise or

acquisition of stock under the applicable Option or Stock Purchase Right has been registered under a then currently effective registration statement under the Securities Act or (B) 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 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 stock.

23. Section 409A.

(a) 409A Award. To the extent that the Administrator determines that any Option, Stock Purchase Right or Restricted Stock granted or awarded under the Plan constitutes "nonqualified deferred compensation within the meaning of Section 409A (a "409A Award"), the agreement evidencing such 409A Award shall be interpreted consistent with the requirements of Section 409A. With respect to any 409A Award, the Administrator may, with the written consent of the affected Holder, adopt such amendments to the Plan and the applicable agreement or adopt other policies and procedures (including amendments, policies and procedures with retroactive effect), or take any other actions, that the Administrator determines are necessary or appropriate to (a) exempt the Option, Stock Purchase Right or Restricted Stock from Section 409A and/or preserve the intended tax treatment of the benefits provided with respect to the Option, Stock Purchase Right or Restricted Stock, or (b) comply with the requirements of Section 409A.

(b) Separation from Service. In addition, if any amount under a 409A Award is payable upon a "separation from service" (within the meaning of Section 409A) to a grantee who is considered a "specified employee" (within the meaning of Section 409A), then no such payment shall be made prior to the date that is the earlier of (i) six months and one day after the grantee's date of separation from service, or (ii) the grantee's death, but only to the extent such delay is necessary to prevent such payment from being subject to interest, penalties and/or additional tax imposed pursuant to Section 409A. The determination of whether and when a separation from service has occurred shall be made in accordance with the presumptions set forth in Treasury Regulation Section 1.409A-1(h).

(c) No Liability. The Company makes no representation or warranty and shall have no liability to the Executive or any other person if any provisions of this Agreement are determined to constitute deferred compensation subject to Section 409A of the Code but do not satisfy an exemption from, or the conditions of Section 409A.

24. Governing Law. The validity and enforceability of this Plan shall be governed by and construed in accordance with the laws of the State of Delaware without regard to otherwise governing principles of conflicts of law.

Adopted by the Board of Directors and approved by the stockholders on September 26, 2007.

Amendment to the Plan increasing the number of shares reserved to 4,149,974 adopted by the Board of Directors and approved by the stockholders on April 14, 2008.

Amendment to the Plan to provide for changes relating to Section 409A of the Internal Revenue Code adopted by the Board of Directors on September 10, 2008.

Amendment to the Plan to provide for changes relating to Section 409A of the Internal Revenue Code approved by the Series A Preferred stockholders on November 11, 2008.

Amendment to the Plan increasing the number of shares reserved to 4,649,974 and providing for certain other changes adopted by the Board of Directors on January 28, 2009.

Amendment to the Plan increasing the number of shares reserved to 4,649,974 and providing for certain other changes approved by the stockholders on January 30, 2009.

Amendment to the Plan increasing the number of shares reserved to 5,899,974 and providing for certain other changes adopted by the Board of Directors and the stockholders on November 9, 2009.

Amendment to the Plan increasing the number of shares reserved to 6,149,974 adopted by the Board of Directors and the stockholders in December 2010.

Amendment to the Plan increasing the number of shares reserved to 7,349,974 adopted by the Board of Directors on July 20, 2011 and the stockholders on November 7, 2011.

Amendment to the Plan increasing the number of shares reserved to 8,349,974 adopted by the Board of Directors and the stockholders on March 13, 2012.

Amendment to the Plan increasing the number of shares reserved to 9,349,974 adopted by the Board of Directors and the stockholders on July 24, 2012.

Amendment to the Plan increasing the number of shares reserved to 14,349,974 adopted by the Board of Directors and the stockholders on October 10, 2012.

FATE THERAPEUTICS, INC.

2007 EQUITY INCENTIVE PLAN

STOCK OPTION AGREEMENT

Pursuant to its 2007 Equity Incentive Plan, as amended from time to time (the "Plan"), Fate Therapeutics, Inc., a Delaware corporation (the "Company"), hereby grants to the Optionee listed below ("Optionee"), an option to purchase the number of shares of the Company's Common Stock set forth below, subject to the terms and conditions of the Plan and this Stock Option Agreement (this "Option Agreement"). Unless otherwise defined herein, the terms defined in the Plan shall have the same defined meanings in this Option Agreement.

I. NOTICE OF STOCK OPTION GRANT

Optionee: _____

Date of Grant: _____

Vesting Commencement Date _____

Exercise Price per Share: _____

Total Number of Shares Granted: _____

Total Exercise Price: _____

Term/Expiration Date: _____

Type of Option: ☐ Incentive Stock Option ☒ Non-Qualified Stock Option

Vesting Schedule: The Shares subject to this Option shall vest according to the following schedule:

[1/48th of the Shares subject to the Option shall vest on the date one month after the Vesting Commencement Date and 1/48th of the Shares subject to the Option shall vest monthly thereafter so that one hundred percent (100%) of the Shares subject to the Option will be vested on the fourth anniversary of the Vesting Commencement Date.]

Termination Period: This Option may be exercised, to the extent vested, for three (3) months after Optionee ceases to be a Service Provider, or such longer period as may be applicable upon the death or disability of Optionee as provided herein (or, if not provided herein, then as provided in the Plan), but in no event later than the Term/Expiration Date as set forth above.

II. AGREEMENT

1. Grant of Option. The Company hereby grants to the Optionee an Option to purchase the number of shares of Common Stock (the "Shares") set forth in the Notice of Grant, at the exercise price per share set forth in the Notice of Grant (the "Exercise Price"). Notwithstanding anything to the contrary anywhere else in this Option Agreement, this grant of an Option is subject to the terms, definitions and provisions of the Plan, which is incorporated herein by reference.

If designated in the Notice of Grant as an Incentive Stock Option, this Option is intended to qualify as an Incentive Stock Option as defined in Section 422 of the Code; provided, however, that to the extent that the aggregate Fair Market Value of the Common Stock with respect to which Incentive Stock Options (within the meaning of Code Section 422, but without regard to Code Section 422(d)), including the Option, are exercisable for the first time by Optionee during any calendar year (under the Plan and all other incentive stock option plans of the Company or any Subsidiary) exceeds $100,000, such options shall be treated as not qualifying under Code Section 422, but rather shall be treated as Non-Qualified Stock Options to the extent required by Code Section 422. The rule set forth in the preceding sentence shall be applied by taking options into account in the order in which they were granted. For purposes of these rules, the Fair Market Value of the Common Stock shall be determined as of the time the option with respect to such stock is granted.

2. Exercise of Option. This Option is exercisable as follows:

(a) Right to Exercise.

(i) This Option shall be exercisable cumulatively according to the vesting schedule set out in the Notice of Grant. For purposes of this Option Agreement, Shares subject to this Option shall vest based on Optionee's continued status as a Service Provider.

(ii) This Option may not be exercised for a fraction of a Share.

(iii) In the event of Optionee's death, disability or other termination of the Optionee's status as a Service Provider, the exercisability of the Option shall be governed by Sections 7, 8 and 9 hereof.

(iv) In no event may this Option be exercised after the Expiration Date of this Option as set forth in the Notice of Grant.

(b) Method of Exercise. This Option shall be exercisable by written notice to the Company (in the form attached as Exhibit A) (the "Exercise Notice"). The Exercise Notice shall state the number of Shares for which the Option is being exercised, and such other representations and agreements with respect to such Shares of Common Stock as may be required by the Company pursuant to the provisions of the Plan. The Exercise Notice shall be signed by Optionee and shall be delivered in person or by certified mail to the Secretary of the Company. The Exercise Notice shall be accompanied by payment of the Exercise Price, including payment of any applicable withholding tax.

No Shares shall be issued pursuant to the exercise of an Option unless such issuance and such exercise comply with all relevant provisions of law and the requirements of any stock exchange upon which the Shares may then be listed. Assuming such compliance, for income tax purposes the Shares shall be considered transferred to Optionee on the date on which the Option is exercised with respect to such Shares.

3. Optionee's Representations. If the Shares purchasable pursuant to the exercise of this Option have not been registered under the Securities Act of 1933, as amended (the "Securities Act"), at the time this Option is exercised, Optionee shall, if required by the Company, concurrently with the exercise of all or any portion of this Option, deliver to the Company his or her Investment Representation Statement in the form attached hereto as Exhibit B.

4. Lock-Up Period. Optionee hereby agrees that if so requested by the Company or any representative of the underwriters (the "Managing Underwriter") in connection with any registration of the offering of any securities of the Company under the Securities Act, Optionee shall not sell or otherwise transfer any Shares or other securities of the Company during the 180-day period (or such longer period as may be requested in writing by the Managing Underwriter and agreed to in writing by the Company) (the "Market Standoff Period") following the effective date of a registration statement of the Company filed under the Securities Act; provided, however, that such restriction shall apply only to the first registration statement of the Company to become effective under the Securities Act that includes securities to be sold on behalf of the Company to the public in an underwritten public offering under the Securities Act. The Company may impose stop-transfer instructions with respect to securities subject to the foregoing restrictions until the end of such Market Standoff Period and these restrictions shall be binding on any transferee of such Shares. Notwithstanding the foregoing, the 180-day period may be extended for up to such number of additional days as is deemed necessary by the Company or the Managing Underwriter to continue coverage by research analysts in accordance with NASD Rule 2711 or any successor rule.

5. Method of Payment. Payment of the Exercise Price shall be by any of the following, or a combination thereof, at the election of the Optionee:

(a) cash;

(b) check;

(c) with the consent of the Administrator, a full recourse promissory note bearing interest (at no less than such rate as is a market rate of interest and which then precludes the imputation of interest under the Code), payable upon such terms as may be prescribed by the Administrator and structured to comply with Applicable Laws;

(d) with the consent of the Administrator, surrender of other Shares of Common Stock of the Company which (A) in the case of Shares acquired from the Company, have been owned by Optionee for more than six (6) months on the date of surrender, and (B) have a Fair Market Value on the date of surrender equal to the Exercise Price of the Shares as to which the Option is being exercised;

(e) with the consent of the Administrator, surrendered Shares issuable upon the exercise of the Option having a Fair Market Value on the date of exercise equal to the aggregate Exercise Price of the Option or exercised portion thereof;

(f) with the consent of the Administrator, property of any kind which constitutes good and valuable consideration;

(g) following the Public Trading Date, with the consent of the Administrator, delivery of a notice that the Optionee has placed a market sell order with a broker with respect to Shares then issuable upon exercise of the Option and that the broker has been directed to pay a sufficient portion of the net proceeds of the sale to the Company in satisfaction of the aggregate Exercise Price; provided, that payment of such proceeds is then made to the Company upon settlement of such sale; or

(h) with the consent of the Administrator, any combination of the foregoing methods of payment.

6. Restrictions on Exercise. This Option may not be exercised until the Plan has been approved by the stockholders of the Company. If the issuance of Shares upon such exercise or if the method of payment for such Shares would constitute a violation of any applicable federal or state securities or other law or regulation, then the Option may also not be exercised. The Company may require Optionee to make any representation and warranty to the Company as may be required by any applicable law or regulation before allowing the Option to be exercised.

7. Termination of Relationship. If Optionee ceases to be a Service Provider (other than by reason of Optionee's death or the total and permanent disability of the Optionee within the meaning of Code Section 22(e)(3)), Optionee may exercise this Option during the Termination Period set out in the Notice of Grant, to the extent the Option was vested on the date on which Optionee ceases to be a Service Provider. To the extent that the Option is not vested on the date on which Optionee ceases to be a Service Provider, or if Optionee does not exercise this Option within the time specified herein, the Option shall terminate.

8. Disability of Optionee. If Optionee ceases to be a Service Provider as a result of his or her total and permanent disability within the meaning of Code Section 22(e)(3), Optionee may exercise the Option to the extent the Option was vested at the date on which Optionee ceases to be a Service Provider, but only within twelve (12) months from such date (and in no event later than the expiration date of the term of this Option as set forth in the Notice of Grant). To the extent that the Option is not vested at the date on which Optionee ceases to be a Service Provider, or if Optionee does not exercise such Option within the time specified herein, the Option shall terminate.

9. Death of Optionee. If Optionee ceases to be a Service Provider as a result of the death of Optionee, the vested portion of the Option may be exercised at any time within twelve (12) months following the date of death (and in no event later than the expiration date of the term of this Option as set forth in the Notice of Grant) by Optionee's estate or by a person who acquires the right to exercise the Option by bequest or inheritance. To the extent that the Option is not vested on the date of death, or if the Option is not exercised within the time specified herein, the Option shall terminate.

10. Non-Transferability of Option. This Option may not be transferred in any manner except by will or by the laws of descent or distribution. It may be exercised during the lifetime of Optionee only by Optionee. The terms of this Option shall be binding upon the executors, administrators, heirs, successors and assigns of the Optionee.

11. Term of Option. This Option may be exercised only within the term set out in the Notice of Grant.

12. Restrictions on Shares. Optionee hereby agrees that Shares purchased upon the exercise of the Option shall be subject to such terms and conditions as the Administrator shall determine in its sole discretion, including, without limitation, restrictions on the transferability of Shares, and a right of first refusal in favor of the Company with respect to permitted transfers of Shares. Such terms and conditions may, in the Administrator's sole discretion, be contained in the Exercise Notice with respect to the Option or in such other agreement as the Administrator shall determine and which the Optionee hereby agrees to enter into at the request of the Company.

13. Drag-Along Transactions. Optionee hereby agrees to the following:

(a) In the event of an Approved Transaction (as defined in that certain Amended and Restated Voting Agreement dated May 4, 2012, by and among the Company and the stockholders listed as parties thereto, as the same may be amended and/or restated from time to time (the "Voting Agreement")), Optionee shall be bound by and shall comply with all terms and conditions contained in Section 4 of the Voting Agreement to the same extent as the Founders (as defined in the Voting Agreement) are bound thereunder.

(b) In addition to and notwithstanding the foregoing, in the event the holders of a majority of the outstanding shares of equity securities of the Company (the "Majority Holders") determine to sell or otherwise dispose of all or substantially all of the assets of the Company or all or fifty percent (50%) or more of the capital stock of the Company, in each case in a transaction constituting a change in control of the Company, to any third party, or to cause the Company to merge with or into or consolidate with any third party (in each case, the "Buyer") in a *bona fide* negotiated transaction (a "Sale"), Optionee shall, at the request of the Company, (i) sell, transfer and deliver, or cause to be sold, transferred and delivered, to the Buyer, Optionee's Shares (including for this purpose all of Optionee's Shares that presently or as a result of any such transaction may be acquired upon the exercise of the Option (following the payment of the exercise price therefor)) on substantially the same terms applicable to the Majority Holders (with appropriate adjustments to reflect the conversion of convertible securities, the redemption of redeemable securities and the exercise of exercisable securities as well as the relative preferences and priorities of preferred stock) and (ii) execute and deliver such instruments of conveyance and transfer and take such other action, including voting such Shares in favor of any Sale proposed by the Majority Holders and executing any purchase agreements, merger agreements, indemnity agreements, escrow agreements or related documents as the Majority Holders or the Buyer may reasonably require in order to carry out the terms and provisions of this Section 13(b).

(c) The provisions set forth in Sections 13(a) and 13(b) will terminate upon the earlier to occur of (i) the first sale of Common Stock of the Company to the general public pursuant to a registration statement filed with and declared effective by the Securities and Exchange Commission under the Securities Act and (ii) the completion of a Liquidation (as defined in the Company's Certificate of Incorporation, as the same may be amended and/or restated from time to time).

(Signature Page Follows)

This Agreement may be executed in two or more counterparts, each of which shall be deemed an original and all of which shall constitute one document.

FATE THERAPEUTICS, INC.

By: _____

Name: _____

Title: _____

OPTIONEE ACKNOWLEDGES AND AGREES THAT THE VESTING OF SHARES PURSUANT TO THE OPTION HEREOF IS EARNED ONLY BY CONTINUING CONSULTANCY OR EMPLOYMENT AT THE WILL OF THE COMPANY (NOT THROUGH THE ACT OF BEING HIRED, BEING GRANTED THIS OPTION OR ACQUIRING SHARES HEREUNDER). OPTIONEE FURTHER ACKNOWLEDGES AND AGREES THAT NOTHING IN THIS AGREEMENT, NOR IN THE COMPANY'S 2007 EQUITY INCENTIVE PLAN, AS AMENDED FROM TIME TO TIME, WHICH IS INCORPORATED HEREIN BY REFERENCE, SHALL CONFER UPON OPTIONEE ANY RIGHT WITH RESPECT TO CONTINUATION OF EMPLOYMENT OR CONSULTANCY BY THE COMPANY, NOR SHALL IT INTERFERE IN ANY WAY WITH OPTIONEE'S RIGHT OR THE COMPANY'S RIGHT TO TERMINATE OPTIONEE'S EMPLOYMENT OR CONSULTANCY AT ANY TIME, WITH OR WITHOUT CAUSE AND WITH OR WITHOUT PRIOR NOTICE.

Optionee acknowledges receipt of a copy of the Plan and represents that he or she is familiar with the terms and provisions thereof. Optionee hereby accepts this Option subject to all of the terms and provisions hereof. Optionee has reviewed the Plan and this Option in their entirety, has had an opportunity to obtain the advice of counsel prior to executing this Option and fully understands all provisions of the Option. Optionee hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Administrator upon any questions arising under the Plan or this Option. Optionee further agrees to notify the Company upon any change in the residence address indicated below.

Dated: _____

_____

OPTIONEE

Residence Address:

EXHIBIT A

FATE THERAPEUTICS, INC.

2007 EQUITY INCENTIVE PLAN

EXERCISE NOTICE

Fate Therapeutics, Inc.
Attention: Stock Administration

1. Exercise of Option. Effective as of today, , , the undersigned ("Optionee") hereby elects to exercise Optionee's option to purchase shares of the Common Stock (the "Shares") of Fate Therapeutics, Inc., a Delaware corporation (the "Company"), under and pursuant to the Fate Therapeutics, Inc. 2007 Equity Incentive Plan, as amended from time to time (the "Plan") and the Stock Option Agreement dated (the "Option Agreement"). Capitalized terms used herein without definition shall have the meanings given in the Option Agreement.

Date of Grant: _____

Vesting Commencement Date: _____

Number of Shares as to which Option is Exercised: _____

Exercise Price per Share: $_____

Total Exercise Price: $_____

Certificate to be issued in name of: _____

Cash Payment delivered herewith: ☐ $_____

Other form of consideration delivered herewith: ☐ Form of Consideration:
$_____

Type of Option: ☐ Incentive Stock Option ☒ Non-Qualified Stock Option

2. Representations of Optionee. Optionee acknowledges that Optionee has received, read and understood the Plan and the Option Agreement. Optionee agrees to abide by and be bound by their terms and conditions.

3. Rights as Stockholder. Until the stock certificate evidencing Shares purchased pursuant to the exercise of the Option is issued (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company), no right to vote or receive dividends or any other rights as a stockholder shall exist with respect to Shares subject to the Option, notwithstanding the exercise of the Option. The Company shall issue (or cause to be issued) such stock certificate promptly after the Option is exercised. No adjustment will be made for a dividend or other right for which the record date is prior to the date the stock certificate is issued, except as provided in Section 13 of the Plan.

Optionee shall enjoy rights as a stockholder until such time as Optionee disposes of the Shares or the Company and/or its assignee(s) exercises the Right of First Refusal (as defined below) hereunder. Upon such exercise, Optionee shall have no further rights as a holder of the Shares so purchased except the right to receive payment for the Shares so purchased in accordance with the provisions of this Agreement, and Optionee shall forthwith cause the certificate(s) evidencing the Shares so purchased to be surrendered to the Company for transfer or cancellation.

4. Optionee's Rights to Transfer Shares.

(a) Company's Right of First Refusal. Before any Shares held by Optionee or any permitted transferee (each, a "Holder") may be sold, pledged, assigned, hypothecated, transferred, or otherwise disposed of (each, a "Transfer"), the Company or its assignee(s) shall have a right of first refusal to purchase the Shares proposed to be Transferred on the terms and conditions set forth in this Section 4 (the "Right of First Refusal").

(i) Notice of Proposed Transfer. In the event any Holder desires to Transfer any Shares, the Holder shall deliver to the Company a written notice (the "Notice") stating: (w) the Holder's bona fide intention to sell or otherwise Transfer such Shares; (x) the name of each proposed purchaser or other transferee ("Proposed Transferee"); (y) the number of Shares to be Transferred to each Proposed Transferee; and (z) the bona fide cash price or other consideration for which the Holder proposes to Transfer the Shares (the "Offered Price"), and the Holder shall offer such Shares at the Offered Price to the Company or its assignee(s).

(ii) Exercise of Right of First Refusal. Within thirty (30) days after receipt of the Notice, the Company and/or its assignee(s) may elect in writing to purchase all, but not less than all, of the Shares proposed to be Transferred to any one or more of the Proposed Transferees. The purchase price shall be determined in accordance with Section 4(iii) hereof.

(iii) Purchase Price. The purchase price ("Purchase Price") for the Shares repurchased under this Section 4 shall be the Offered Price. If the Offered Price includes consideration other than cash, the cash equivalent value of the non-cash consideration shall be determined by the Board in good faith.

(iv) Payment. Payment of the Purchase Price shall be made, at the option of the Company or its assignee(s), in cash (by check), by cancellation of all or a portion of any outstanding indebtedness of the Holder to the Company (or, in the case of repurchase by an assignee, to the assignee), or by any combination thereof within thirty (30) days after receipt of the Notice or in the manner and at the times mutually agreed to by the Company and the Holder.

(v) Holder's Right to Transfer. If all of the Shares proposed in the Notice to be Transferred are not purchased by the Company and/or its assignee(s) as provided in this Section 4, then the Holder may sell or otherwise Transfer such Shares to that Proposed Transferee at the Offered Price or at a higher price, provided that such sale or other Transfer is consummated within one hundred twenty (120) days after the date of the Notice and provided

further that any such sale or other Transfer is effected in accordance with any applicable securities laws and the Proposed Transferee agrees in writing that the provisions of this Section 4 shall continue to apply to the Shares in the hands of such Proposed Transferee. If the Shares described in the Notice are not Transferred to the Proposed Transferee within such 120-day period, or if the Holder proposes to change the price or other terms to make them more favorable to the Proposed Transferee, a new Notice shall be given to the Company, and the Company and/or its assignees shall again be offered the Right of First Refusal as provided herein before any Shares held by the Holder may be sold or otherwise Transferred.

(b) Exception for Certain Family Transfers. Anything to the contrary contained in this Section 4 notwithstanding, the Transfer of any or all of the Shares during the Optionee's lifetime or upon the Optionee's death by will or intestacy to the Optionee's Immediate Family or a trust for the benefit of the Optionee's Immediate Family shall be exempt from the Right of First Refusal. As used herein, "Immediate Family" shall mean spouse, lineal descendant or antecedent, father, mother, brother or sister or stepchild (whether or not adopted). In such case, the transferee or other recipient shall receive and hold the Shares so Transferred subject to the provisions of this Section 4 (including the Right of First Refusal) and there shall be no further Transfer of such Shares except in accordance with the terms of this Section 4.

(c) Assignment. The right of the Company to purchase any part of the Shares may be assigned in whole or in part to any stockholder or stockholders of the Company or other persons or organizations.

(d) Termination of Right of First Refusal. The Right of First Refusal shall terminate as to all Shares upon the earlier of (i) a sale of Common Stock of the Company to the general public pursuant to a registration statement filed with and declared effective by the Securities and Exchange Commission under the Securities Act of 1933, as amended (a "Public Offering") or (ii) the completion of a Liquidation (as defined in the Company's Certificate of Incorporation, as the same may be amended and/or restated from time to time).

5. Transfer Restrictions. Any transfer or sale of the Shares is subject to restrictions on transfer imposed by any applicable state and federal securities laws. Any Transfer or attempted Transfer of any of the Shares not in accordance with the terms of this Agreement, including the Right of First Refusal provided in this Agreement, shall be void and the Company may enforce the terms of this Agreement by stop transfer instructions or similar actions by the Company and its agents or designees.

6. Tax Consultation. Optionee understands that Optionee may suffer adverse tax consequences as a result of Optionee's purchase or disposition of the Shares. Optionee represents that Optionee has consulted with any tax consultants Optionee deems advisable in connection with the purchase or disposition of the Shares and that Optionee is not relying on the Company for any tax advice.

7. Restrictive Legends and Stop-Transfer Orders.

(a) Legends. Optionee understands and agrees that the Company shall cause the legends set forth below or legends substantially equivalent thereto, to be placed upon any certificate(s) evidencing ownership of the Shares together with any other legends that may be required by state or federal securities laws:

THE SECURITIES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933 (THE "ACT") AND MAY NOT BE OFFERED, SOLD OR OTHERWISE TRANSFERRED, PLEDGED OR HYPOTHECATED UNLESS AND UNTIL REGISTERED UNDER THE ACT OR, IN THE OPINION OF COUNSEL IN FORM AND SUBSTANCE SATISFACTORY TO THE ISSUER OF THESE SECURITIES, SUCH OFFER, SALE OR TRANSFER, PLEDGE OR HYPOTHECATION IS IN COMPLIANCE THEREWITH.

THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO CERTAIN RESTRICTIONS ON TRANSFER AND RIGHT OF FIRST REFUSAL OPTIONS HELD BY THE ISSUER OR ITS ASSIGNEE(S) AS SET FORTH IN THE EXERCISE NOTICE BETWEEN THE ISSUER AND THE ORIGINAL HOLDER OF THESE SHARES, A COPY OF WHICH MAY BE OBTAINED AT THE PRINCIPAL OFFICE OF THE ISSUER. SUCH TRANSFER RESTRICTIONS AND RIGHT OF FIRST REFUSAL ARE BINDING ON TRANSFEREES OF THESE SHARES.

(b) Stop-Transfer Notices. Optionee agrees that, in order to ensure compliance with the restrictions referred to herein, the Company may issue appropriate "stop transfer" instructions to its transfer agent, if any, and that, if the Company transfers its own securities, it may make appropriate notations to the same effect in its own records.

(c) Refusal to Transfer. The Company shall not be required (i) to transfer on its books any Shares that have been sold or otherwise transferred in violation of any of the provisions of this Agreement or (ii) to treat as owner of such Shares or to accord the right to vote or pay dividends to any purchaser or other transferee to whom such Shares shall have been so transferred.

8. Successors and Assigns. The Company may assign any of its rights under this Agreement to single or multiple assignees, and this Agreement shall inure to the benefit of the successors and assigns of the Company. Subject to the restrictions on transfer herein set forth, this Agreement shall be binding upon Optionee and his or her heirs, executors, administrators, successors and assigns.

9. Interpretation. Any dispute regarding the interpretation of this Agreement shall be submitted by Optionee or by the Company forthwith to the Company's Board of Directors or committee thereof that is responsible for the administration of the Plan (the "Administrator"), which shall review such dispute at its next regular meeting. The resolution of such a dispute by the Administrator shall be final and binding on the Company and on Optionee.

10. Governing Law; Severability. This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware excluding that body of law pertaining to conflicts of law. Should any provision of this Agreement be determined by a court of law to be illegal or unenforceable, the other provisions shall nevertheless remain effective and shall remain enforceable.

11. Notices. Any notice required or permitted hereunder shall be given in writing and shall be deemed effectively given upon personal delivery or upon deposit in the United States mail by certified mail, with postage and fees prepaid, addressed to the other party at its address as shown below beneath its signature, or to such other address as such party may designate in writing from time to time to the other party.

12. Further Instruments. The Optionee hereby agrees to execute such further instruments and to take such further action as may be reasonably necessary to carry out the purposes and intent of this Agreement including, without limitation, the Investment Representation Statement in the form attached to the Option Agreement as Exhibit B.

13. Delivery of Payment. The Optionee herewith delivers to the Company the full Exercise Price for the Shares, as well as any applicable withholding tax.

14. Drag-Along Transactions. Optionee hereby agrees to the following:

(a) In the event of an Approved Transaction (as defined in that certain Amended and Restated Voting Agreement dated May 4, 2012, by and among the Company and the stockholders listed as parties thereto, as the same may be amended and/or restated from time to time (the "Voting Agreement")), Optionee shall be bound by and shall comply with all terms and conditions contained in Section 4 of the Voting Agreement to the same extent as the Founders (as defined in the Voting Agreement) are bound thereunder.

(b) In addition to and notwithstanding the foregoing, in the event the holders of a majority of the outstanding shares of equity securities of the Company (the "Majority Holders") determine to sell or otherwise dispose of all or substantially all of the assets of the Company or all or fifty percent (50%) or more of the capital stock of the Company, in each case in a transaction constituting a change in control of the Company, to any third party, or to cause the Company to merge with or into or consolidate with any third party (in each case, the "Buyer") in a bona fide negotiated transaction (a "Sale"), Optionee shall, at the request of the Company, (i) sell, transfer and deliver, or cause to be sold, transferred and delivered, to the Buyer, Optionee's Shares (including for this purpose all of Optionee's Shares that presently or as a result of any such transaction may be acquired upon the exercise of the Option (following the payment of the exercise price therefor)) on substantially the same terms applicable to the Majority Holders (with appropriate adjustments to reflect the conversion of convertible securities, the redemption of redeemable securities and the exercise of exercisable securities as well as the relative preferences and priorities of preferred stock) and (ii) execute and deliver such instruments of conveyance and transfer and take such other action, including voting such Shares in favor of any Sale proposed by the Majority Holders and executing any purchase agreements, merger agreements, indemnity agreements, escrow agreements or related documents as the Majority Holders or the Buyer may reasonably require in order to carry out the terms and provisions of this Section 14(b).

(c) The provisions set forth in Sections 14(a) and 14(b) will terminate upon the earlier to occur of (i) a Public Offering or (ii) the completion of a Liquidation (as defined in the Company's Certificate of Incorporation, as the same may be amended and/or restated from time to time).

15. Entire Agreement. The Plan and Option Agreement are incorporated herein by reference. This Agreement, the Plan, the Option Agreement and the Investment Representation Statement constitute the entire agreement of the parties and supersede in their entirety all prior undertakings and agreements of the Company and Optionee with respect to the subject matter hereof.

Accepted by:

FATE THERAPEUTICS, INC.

By: _____

Name: _____

Title: _____

Submitted by:

OPTIONEE

_____

Optionee

Address: _____

_____

EXHIBIT B

INVESTMENT REPRESENTATION STATEMENT

OPTIONEE :

COMPANY : Fate Therapeutics, Inc.

SECURITY : Common Stock

AMOUNT :

DATE :

In connection with the purchase of the above-listed shares of Common Stock (the "Securities") of Fate Therapeutics, Inc., a Delaware corporation (the "Company"), the undersigned ("Optionee") represents to the Company the following:

(a) Optionee is aware of the Company's business affairs and financial condition and has acquired sufficient information about the Company to reach an informed and knowledgeable decision to acquire the Securities. Optionee is acquiring these Securities for investment for Optionee's own account only and not with a view to, or for resale in connection with, any "distribution" thereof within the meaning of the Securities Act of 1933, as amended (the "Securities Act").

(b) Optionee acknowledges and understands that the Securities constitute "restricted securities" under the Securities Act and have not been registered under the Securities Act in reliance upon a specific exemption therefrom, which exemption depends upon, among other things, the bona fide nature of Optionee's investment intent as expressed herein. Optionee understands that, in the view of the Securities and Exchange Commission, the statutory basis for such exemption may be unavailable if Optionee's representation was predicated solely upon a present intention to hold these Securities for the minimum capital gains period specified under tax statutes, for a deferred sale, for or until an increase or decrease in the market price of the Securities, or for a period of one year or any other fixed period in the future. Optionee further understands that the Securities must be held indefinitely unless they are subsequently registered under the Securities Act or an exemption from such registration is available. Optionee further acknowledges and understands that the Company is under no obligation to register the Securities. Optionee understands that the certificate evidencing the Securities will be imprinted with a legend which prohibits the transfer of the Securities unless they are registered or such registration is not required in the opinion of counsel satisfactory to the Company and any other legend required under applicable state securities laws.

(c) Optionee is familiar with the provisions of Rule 701 and Rule 144, each promulgated under the Securities Act, which, in substance, permit limited public resale of "restricted securities" acquired, directly or indirectly from the issuer thereof, in a non-public offering subject to

the satisfaction of certain conditions. Rule 701 provides that if the issuer qualifies under Rule 701 at the time of the grant of the Option to Optionee, the exercise will be exempt from registration under the Securities Act. In the event the Company becomes subject to the reporting requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), ninety (90) days thereafter (or such longer period as any market stand-off agreement may require) the Securities exempt under Rule 701 may be resold, subject to the satisfaction of certain of the conditions specified by Rule 144, including: (1) the resale being made through a broker in an unsolicited "broker's transaction" or in transactions directly with a market maker (as this term is defined under the Exchange Act); and, in the case of an affiliate, (2) the availability of certain public information about the Company, (3) the amount of Securities being sold during any three (3) month period not exceeding the limitations specified in Rule 144(e), and (4) the timely filing of a Form 144, if applicable.

In the event that the Company does not qualify under Rule 701 at the time of grant of the Option, then the Securities may be resold in certain limited circumstances subject to the provisions of Rule 144, which may require the resale to occur not less than one year after the later of the date the Securities were sold by the Company or the date the Securities were sold by an affiliate of the Company, within the meaning of Rule 144, subject to additional limitations in the case of a resale by an affiliate.

(d) Optionee further understands that in the event all of the applicable requirements of Rule 701 or 144 are not satisfied, registration under the Securities Act, compliance with Regulation A, or some other registration exemption will be required; and that, notwithstanding the fact that Rules 144 and 701 are not exclusive, the Staff of the Securities and Exchange Commission has expressed its opinion that persons proposing to sell private placement securities other than in a registered offering and otherwise than pursuant to Rules 144 or 701 will have a substantial burden of proof in establishing that an exemption from registration is available for such offers or sales, and that such persons and their respective brokers who participate in such transactions do so at their own risk. Optionee understands that no assurances can be given that any such other registration exemption will be available in such event.

Signature of Optionee:

_____

Optionee

Date: ,

FATE THERAPEUTICS, INC.

2007 EQUITY INCENTIVE PLAN

STOCK OPTION AGREEMENT

Pursuant to its 2007 Equity Incentive Plan, as amended from time to time (the "Plan"), Fate Therapeutics, Inc., a Delaware corporation (the "Company"), hereby grants to the Optionee listed below ("Optionee"), an option to purchase the number of shares of the Company's Common Stock set forth below, subject to the terms and conditions of the Plan and this Stock Option Agreement (this "Option Agreement"). Unless otherwise defined herein, the terms defined in the Plan shall have the same defined meanings in this Option Agreement.

I. NOTICE OF STOCK OPTION GRANT

Optionee: _____

Date of Grant: _____

Vesting Commencement Date _____

Exercise Price per Share: _____

Total Number of Shares Granted: _____

Total Exercise Price: _____

Term/Expiration Date: _____

Type of Option: ☒ Incentive Stock Option ☐ Non-Qualified Stock Option

Vesting Schedule: The Shares subject to this Option shall vest according to the following schedule:

[Twenty-five percent (25%) of the Shares subject to the Option (rounded down to the next whole number of shares) shall be vested on the first (1st) anniversary of the Vesting Commencement Date and 1/48th of the Shares subject to the Option shall vest monthly thereafter so that one hundred percent (100%) of the Shares subject to the Option are vested on the fourth anniversary of the Vesting Commencement Date.]

Termination Period: This Option may be exercised, to the extent vested, for three (3) months after Optionee ceases to be a Service Provider, or such longer period as may be applicable upon the death or disability of Optionee as provided herein (or, if not provided herein, then as provided in the Plan), but in no event later than the Term/Expiration Date as set forth above.

II. AGREEMENT

1. Grant of Option. The Company hereby grants to the Optionee an Option to purchase the number of shares of Common Stock (the "Shares") set forth in the Notice of Grant, at the exercise price per share set forth in the Notice of Grant (the "Exercise Price"). Notwithstanding anything to the contrary anywhere else in this Option Agreement, this grant of an Option is subject to the terms, definitions and provisions of the Plan, which is incorporated herein by reference.

If designated in the Notice of Grant as an Incentive Stock Option, this Option is intended to qualify as an Incentive Stock Option as defined in Section 422 of the Code; provided, however, that to the extent that the aggregate Fair Market Value of the Common Stock with respect to which Incentive Stock Options (within the meaning of Code Section 422, but without regard to Code Section 422(d)), including the Option, are exercisable for the first time by Optionee during any calendar year (under the Plan and all other incentive stock option plans of the Company or any Subsidiary) exceeds $100,000, such options shall be treated as not qualifying under Code Section 422, but rather shall be treated as Non-Qualified Stock Options to the extent required by Code Section 422. The rule set forth in the preceding sentence shall be applied by taking options into account in the order in which they were granted. For purposes of these rules, the Fair Market Value of the Common Stock shall be determined as of the time the option with respect to such stock is granted.

2. Exercise of Option. This Option is exercisable as follows:

(a) Right to Exercise.

(i) This Option shall be exercisable cumulatively according to the vesting schedule set out in the Notice of Grant. For purposes of this Option Agreement, Shares subject to this Option shall vest based on Optionee's continued status as a Service Provider.

(ii) This Option may not be exercised for a fraction of a Share.

(iii) In the event of Optionee's death, disability or other termination of the Optionee's status as a Service Provider, the exercisability of the Option shall be governed by Sections 7, 8 and 9 hereof.

(iv) In no event may this Option be exercised after the Expiration Date of this Option as set forth in the Notice of Grant.

(b) Method of Exercise. This Option shall be exercisable by written notice to the Company (in the form attached as Exhibit A) (the "Exercise Notice"). The Exercise Notice shall state the number of Shares for which the Option is being exercised, and such other representations and agreements with respect to such Shares of Common Stock as may be required by the Company pursuant to the provisions of the Plan. The Exercise Notice shall be signed by Optionee and shall be delivered in person or by certified mail to the Secretary of the Company. The Exercise Notice shall be accompanied by payment of the Exercise Price, including payment of any applicable withholding tax.

No Shares shall be issued pursuant to the exercise of an Option unless such issuance and such exercise comply with all relevant provisions of law and the requirements of any stock exchange upon which the Shares may then be listed. Assuming such compliance, for income tax purposes the Shares shall be considered transferred to Optionee on the date on which the Option is exercised with respect to such Shares.

3. Optionee's Representations. If the Shares purchasable pursuant to the exercise of this Option have not been registered under the Securities Act of 1933, as amended (the "Securities Act"), at the time this Option is exercised, Optionee shall, if required by the Company, concurrently with the exercise of all or any portion of this Option, deliver to the Company his or her Investment Representation Statement in the form attached hereto as Exhibit B.

4. Lock-Up Period. Optionee hereby agrees that if so requested by the Company or any representative of the underwriters (the "Managing Underwriter") in connection with any registration of the offering of any securities of the Company under the Securities Act, Optionee shall not sell or otherwise transfer any Shares or other securities of the Company during the 180-day period (or such longer period as may be requested in writing by the Managing Underwriter and agreed to in writing by the Company) (the "Market Standoff Period") following the effective date of a registration statement of the Company filed under the Securities Act; provided, however, that such restriction shall apply only to the first registration statement of the Company to become effective under the Securities Act that includes securities to be sold on behalf of the Company to the public in an underwritten public offering under the Securities Act. The Company may impose stop-transfer instructions with respect to securities subject to the foregoing restrictions until the end of such Market Standoff Period and these restrictions shall be binding on any transferee of such Shares. Notwithstanding the foregoing, the 180-day period may be extended for up to such number of additional days as is deemed necessary by the Company or the Managing Underwriter to continue coverage by research analysts in accordance with NASD Rule 2711 or any successor rule.

5. Method of Payment. Payment of the Exercise Price shall be by any of the following, or a combination thereof, at the election of the Optionee:

(a) cash;

(b) check;

(c) with the consent of the Administrator, a full recourse promissory note bearing interest (at no less than such rate as is a market rate of interest and which then precludes the imputation of interest under the Code), payable upon such terms as may be prescribed by the Administrator and structured to comply with Applicable Laws;

(d) with the consent of the Administrator, surrender of other Shares of Common Stock of the Company which (A) in the case of Shares acquired from the Company, have been owned by Optionee for more than six (6) months on the date of surrender, and (B) have a Fair Market Value on the date of surrender equal to the Exercise Price of the Shares as to which the Option is being exercised;

(e) with the consent of the Administrator, surrendered Shares issuable upon the exercise of the Option having a Fair Market Value on the date of exercise equal to the aggregate Exercise Price of the Option or exercised portion thereof;

(f) with the consent of the Administrator, property of any kind which constitutes good and valuable consideration;

(g) following the Public Trading Date, with the consent of the Administrator, delivery of a notice that the Optionee has placed a market sell order with a broker with respect to Shares then issuable upon exercise of the Option and that the broker has been directed to pay a sufficient portion of the net proceeds of the sale to the Company in satisfaction of the aggregate Exercise Price; provided, that payment of such proceeds is then made to the Company upon settlement of such sale; or

(h) with the consent of the Administrator, any combination of the foregoing methods of payment.

6. Restrictions on Exercise. This Option may not be exercised until the Plan has been approved by the stockholders of the Company. If the issuance of Shares upon such exercise or if the method of payment for such Shares would constitute a violation of any applicable federal or state securities or other law or regulation, then the Option may also not be exercised. The Company may require Optionee to make any representation and warranty to the Company as may be required by any applicable law or regulation before allowing the Option to be exercised.

7. Termination of Relationship. If Optionee ceases to be a Service Provider (other than by reason of Optionee's death or the total and permanent disability of the Optionee within the meaning of Code Section 22(e)(3)), Optionee may exercise this Option during the Termination Period set out in the Notice of Grant, to the extent the Option was vested on the date on which Optionee ceases to be a Service Provider. To the extent that the Option is not vested on the date on which Optionee ceases to be a Service Provider, or if Optionee does not exercise this Option within the time specified herein, the Option shall terminate.

8. Disability of Optionee. If Optionee ceases to be a Service Provider as a result of his or her total and permanent disability within the meaning of Code Section 22(e)(3), Optionee may exercise the Option to the extent the Option was vested at the date on which Optionee ceases to be a Service Provider, but only within twelve (12) months from such date (and in no event later than the expiration date of the term of this Option as set forth in the Notice of Grant). To the extent that the Option is not vested at the date on which Optionee ceases to be a Service Provider, or if Optionee does not exercise such Option within the time specified herein, the Option shall terminate.

9. Death of Optionee. If Optionee ceases to be a Service Provider as a result of the death of Optionee, the vested portion of the Option may be exercised at any time within twelve (12) months following the date of death (and in no event later than the expiration date of the term of this Option as set forth in the Notice of Grant) by Optionee's estate or by a person who acquires the right to exercise the Option by bequest or inheritance. To the extent that the Option is not vested on the date of death, or if the Option is not exercised within the time specified herein, the Option shall terminate.

10. Non-Transferability of Option. This Option may not be transferred in any manner except by will or by the laws of descent or distribution. It may be exercised during the lifetime of Optionee only by Optionee. The terms of this Option shall be binding upon the executors, administrators, heirs, successors and assigns of the Optionee.

11. Term of Option. This Option may be exercised only within the term set out in the Notice of Grant.

12. Restrictions on Shares. Optionee hereby agrees that Shares purchased upon the exercise of the Option shall be subject to such terms and conditions as the Administrator shall determine in its sole discretion, including, without limitation, restrictions on the transferability of Shares, and a right of first refusal in favor of the Company with respect to permitted transfers of Shares. Such terms and conditions may, in the Administrator's sole discretion, be contained in the Exercise Notice with respect to the Option or in such other agreement as the Administrator shall determine and which the Optionee hereby agrees to enter into at the request of the Company.

13. Drag-Along Transactions. Optionee hereby agrees to the following:

(a) In the event of an Approved Transaction (as defined in that certain Amended and Restated Voting Agreement dated May 4, 2012, by and among the Company and the stockholders listed as parties thereto, as the same may be amended and/or restated from time to time (the "Voting Agreement")), Optionee shall be bound by and shall comply with all terms and conditions contained in Section 4 of the Voting Agreement to the same extent as the Founders (as defined in the Voting Agreement) are bound thereunder.

(b) In addition to and notwithstanding the foregoing, in the event the holders of a majority of the outstanding shares of equity securities of the Company (the "Majority Holders") determine to sell or otherwise dispose of all or substantially all of the assets of the Company or all or fifty percent (50%) or more of the capital stock of the Company, in each case in a transaction constituting a change in control of the Company, to any third party, or to cause the Company to merge with or into or consolidate with any third party (in each case, the "Buyer") in a *bona fide* negotiated transaction (a "Sale"), Optionee shall, at the request of the Company, (i) sell, transfer and deliver, or cause to be sold, transferred and delivered, to the Buyer, Optionee's Shares (including for this purpose all of Optionee's Shares that presently or as a result of any such transaction may be acquired upon the exercise of the Option (following the payment of the exercise price therefor)) on substantially the same terms applicable to the Majority Holders (with appropriate adjustments to reflect the conversion of convertible securities, the redemption of redeemable securities and the exercise of exercisable securities as well as the relative preferences and priorities of preferred stock) and (ii) execute and deliver such instruments of conveyance and transfer and take such other action, including voting such Shares in favor of any Sale proposed by the Majority Holders and executing any purchase agreements, merger agreements, indemnity agreements, escrow agreements or related documents as the Majority Holders or the Buyer may reasonably require in order to carry out the terms and provisions of this Section 13(b).

(c) The provisions set forth in Sections 13(a) and 13(b) will terminate upon the earlier to occur of (i) the first sale of Common Stock of the Company to the general public pursuant to a registration statement filed with and declared effective by the Securities and Exchange Commission under the Securities Act and (ii) the completion of a Liquidation (as defined in the Company's Certificate of Incorporation, as the same may be amended and/or restated from time to time).

(Signature Page Follows)

This Agreement may be executed in two or more counterparts, each of which shall be deemed an original and all of which shall constitute one document.

FATE THERAPEUTICS, INC.

By: _____

Name: _____

Title: _____

OPTIONEE ACKNOWLEDGES AND AGREES THAT THE VESTING OF SHARES PURSUANT TO THE OPTION HEREOF IS EARNED ONLY BY CONTINUING CONSULTANCY OR EMPLOYMENT AT THE WILL OF THE COMPANY (NOT THROUGH THE ACT OF BEING HIRED, BEING GRANTED THIS OPTION OR ACQUIRING SHARES HEREUNDER). OPTIONEE FURTHER ACKNOWLEDGES AND AGREES THAT NOTHING IN THIS AGREEMENT, NOR IN THE COMPANY'S 2007 EQUITY INCENTIVE PLAN, AS AMENDED FROM TIME TO TIME, WHICH IS INCORPORATED HEREIN BY REFERENCE, SHALL CONFER UPON OPTIONEE ANY RIGHT WITH RESPECT TO CONTINUATION OF EMPLOYMENT OR CONSULTANCY BY THE COMPANY, NOR SHALL IT INTERFERE IN ANY WAY WITH OPTIONEE'S RIGHT OR THE COMPANY'S RIGHT TO TERMINATE OPTIONEE'S EMPLOYMENT OR CONSULTANCY AT ANY TIME, WITH OR WITHOUT CAUSE AND WITH OR WITHOUT PRIOR NOTICE.

Optionee acknowledges receipt of a copy of the Plan and represents that he or she is familiar with the terms and provisions thereof. Optionee hereby accepts this Option subject to all of the terms and provisions hereof. Optionee has reviewed the Plan and this Option in their entirety, has had an opportunity to obtain the advice of counsel prior to executing this Option and fully understands all provisions of the Option. Optionee hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Administrator upon any questions arising under the Plan or this Option. Optionee further agrees to notify the Company upon any change in the residence address indicated below.

Dated: _____

_____

OPTIONEE

Residence Address:

EXHIBIT A

FATE THERAPEUTICS, INC.

2007 EQUITY INCENTIVE PLAN

EXERCISE NOTICE

Fate Therapeutics, Inc.
Attention: Stock Administration

1. Exercise of Option. Effective as of today, , , the undersigned ("Optionee") hereby elects to exercise Optionee's option to purchase shares of the Common Stock (the "Shares") of Fate Therapeutics, Inc., a Delaware corporation (the "Company"), under and pursuant to the Fate Therapeutics, Inc. 2007 Equity Incentive Plan, as amended from time to time (the "Plan") and the Stock Option Agreement dated (the "Option Agreement"). Capitalized terms used herein without definition shall have the meanings given in the Option Agreement.

Date of Grant:		_____
Vesting Commencement Date:		_____
Number of Shares as to which Option is Exercised:		_____
Exercise Price per Share:		$_____
Total Exercise Price:		$_____
Certificate to be issued in name of:		_____
Cash Payment delivered herewith:	☐	$_____
Other form of consideration delivered herewith:	☐	Form of Consideration: $_____

Type of Option: ☒ Incentive Stock Option ☐ Non-Qualified Stock Option

2. Representations of Optionee. Optionee acknowledges that Optionee has received, read and understood the Plan and the Option Agreement. Optionee agrees to abide by and be bound by their terms and conditions.

3. Rights as Stockholder. Until the stock certificate evidencing Shares purchased pursuant to the exercise of the Option is issued (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company), no right to vote or receive dividends or any other rights as a stockholder shall exist with respect to Shares subject to the Option, notwithstanding the exercise of the Option. The Company shall issue (or cause to be issued) such stock certificate promptly after the Option is exercised. No adjustment will be made for a dividend or other right for which the record date is prior to the date the stock certificate is issued, except as provided in Section 13 of the Plan.

Optionee shall enjoy rights as a stockholder until such time as Optionee disposes of the Shares or the Company and/or its assignee(s) exercises the Right of First Refusal (as defined below) hereunder. Upon such exercise, Optionee shall have no further rights as a holder of the Shares so purchased except the right to receive payment for the Shares so purchased in accordance with the provisions of this Agreement, and Optionee shall forthwith cause the certificate(s) evidencing the Shares so purchased to be surrendered to the Company for transfer or cancellation.

4. Optionee's Rights to Transfer Shares.

(a) Company's Right of First Refusal. Before any Shares held by Optionee or any permitted transferee (each, a "Holder") may be sold, pledged, assigned, hypothecated, transferred, or otherwise disposed of (each, a "Transfer"), the Company or its assignee(s) shall have a right of first refusal to purchase the Shares proposed to be Transferred on the terms and conditions set forth in this Section 4 (the "Right of First Refusal").

(i) Notice of Proposed Transfer. In the event any Holder desires to Transfer any Shares, the Holder shall deliver to the Company a written notice (the "Notice") stating: (w) the Holder's bona fide intention to sell or otherwise Transfer such Shares; (x) the name of each proposed purchaser or other transferee ("Proposed Transferee"); (y) the number of Shares to be Transferred to each Proposed Transferee; and (z) the bona fide cash price or other consideration for which the Holder proposes to Transfer the Shares (the "Offered Price"), and the Holder shall offer such Shares at the Offered Price to the Company or its assignee(s).

(ii) Exercise of Right of First Refusal. Within thirty (30) days after receipt of the Notice, the Company and/or its assignee(s) may elect in writing to purchase all, but not less than all, of the Shares proposed to be Transferred to any one or more of the Proposed Transferees. The purchase price shall be determined in accordance with Section 4(iii) hereof.

(iii) Purchase Price. The purchase price ("Purchase Price") for the Shares repurchased under this Section 4 shall be the Offered Price. If the Offered Price includes consideration other than cash, the cash equivalent value of the non-cash consideration shall be determined by the Board in good faith.

(iv) Payment. Payment of the Purchase Price shall be made, at the option of the Company or its assignee(s), in cash (by check), by cancellation of all or a portion of any outstanding indebtedness of the Holder to the Company (or, in the case of repurchase by an assignee, to the assignee), or by any combination thereof within thirty (30) days after receipt of the Notice or in the manner and at the times mutually agreed to by the Company and the Holder.

(v) Holder's Right to Transfer. If all of the Shares proposed in the Notice to be Transferred are not purchased by the Company and/or its assignee(s) as provided in this Section 4, then the Holder may sell or otherwise Transfer such Shares to that Proposed Transferee at the Offered Price or at a higher price, provided that such sale or other Transfer is consummated within one hundred twenty (120) days after the date of the Notice and provided

further that any such sale or other Transfer is effected in accordance with any applicable securities laws and the Proposed Transferee agrees in writing that the provisions of this Section 4 shall continue to apply to the Shares in the hands of such Proposed Transferee. If the Shares described in the Notice are not Transferred to the Proposed Transferee within such 120-day period, or if the Holder proposes to change the price or other terms to make them more favorable to the Proposed Transferee, a new Notice shall be given to the Company, and the Company and/or its assignees shall again be offered the Right of First Refusal as provided herein before any Shares held by the Holder may be sold or otherwise Transferred.

(b) Exception for Certain Family Transfers. Anything to the contrary contained in this Section 4 notwithstanding, the Transfer of any or all of the Shares during the Optionee's lifetime or upon the Optionee's death by will or intestacy to the Optionee's Immediate Family or a trust for the benefit of the Optionee's Immediate Family shall be exempt from the Right of First Refusal. As used herein, "Immediate Family" shall mean spouse, lineal descendant or antecedent, father, mother, brother or sister or stepchild (whether or not adopted). In such case, the transferee or other recipient shall receive and hold the Shares so Transferred subject to the provisions of this Section 4 (including the Right of First Refusal) and there shall be no further Transfer of such Shares except in accordance with the terms of this Section 4.

(c) Assignment. The right of the Company to purchase any part of the Shares may be assigned in whole or in part to any stockholder or stockholders of the Company or other persons or organizations.

(d) Termination of Right of First Refusal. The Right of First Refusal shall terminate as to all Shares upon the earlier of (i) a sale of Common Stock of the Company to the general public pursuant to a registration statement filed with and declared effective by the Securities and Exchange Commission under the Securities Act of 1933, as amended (a "Public Offering") or (ii) the completion of a Liquidation (as defined in the Company's Certificate of Incorporation, as the same may be amended and/or restated from time to time).

5. Transfer Restrictions. Any transfer or sale of the Shares is subject to restrictions on transfer imposed by any applicable state and federal securities laws. Any Transfer or attempted Transfer of any of the Shares not in accordance with the terms of this Agreement, including the Right of First Refusal provided in this Agreement, shall be void and the Company may enforce the terms of this Agreement by stop transfer instructions or similar actions by the Company and its agents or designees.

6. Tax Consultation. Optionee understands that Optionee may suffer adverse tax consequences as a result of Optionee's purchase or disposition of the Shares. Optionee represents that Optionee has consulted with any tax consultants Optionee deems advisable in connection with the purchase or disposition of the Shares and that Optionee is not relying on the Company for any tax advice.

7. Restrictive Legends and Stop-Transfer Orders.

(a) Legends. Optionee understands and agrees that the Company shall cause the legends set forth below or legends substantially equivalent thereto, to be placed upon any certificate(s) evidencing ownership of the Shares together with any other legends that may be required by state or federal securities laws:

THE SECURITIES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933 (THE "ACT") AND MAY NOT BE OFFERED, SOLD OR OTHERWISE TRANSFERRED, PLEDGED OR HYPOTHECATED UNLESS AND UNTIL REGISTERED UNDER THE ACT OR, IN THE OPINION OF COUNSEL IN FORM AND SUBSTANCE SATISFACTORY TO THE ISSUER OF THESE SECURITIES, SUCH OFFER, SALE OR TRANSFER, PLEDGE OR HYPOTHECATION IS IN COMPLIANCE THEREWITH.

THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO CERTAIN RESTRICTIONS ON TRANSFER AND RIGHT OF FIRST REFUSAL OPTIONS HELD BY THE ISSUER OR ITS ASSIGNEE(S) AS SET FORTH IN THE EXERCISE NOTICE BETWEEN THE ISSUER AND THE ORIGINAL HOLDER OF THESE SHARES, A COPY OF WHICH MAY BE OBTAINED AT THE PRINCIPAL OFFICE OF THE ISSUER. SUCH TRANSFER RESTRICTIONS AND RIGHT OF FIRST REFUSAL ARE BINDING ON TRANSFEREES OF THESE SHARES.

(b) Stop-Transfer Notices. Optionee agrees that, in order to ensure compliance with the restrictions referred to herein, the Company may issue appropriate "stop transfer" instructions to its transfer agent, if any, and that, if the Company transfers its own securities, it may make appropriate notations to the same effect in its own records.

(c) Refusal to Transfer. The Company shall not be required (i) to transfer on its books any Shares that have been sold or otherwise transferred in violation of any of the provisions of this Agreement or (ii) to treat as owner of such Shares or to accord the right to vote or pay dividends to any purchaser or other transferee to whom such Shares shall have been so transferred.

8. Successors and Assigns. The Company may assign any of its rights under this Agreement to single or multiple assignees, and this Agreement shall inure to the benefit of the successors and assigns of the Company. Subject to the restrictions on transfer herein set forth, this Agreement shall be binding upon Optionee and his or her heirs, executors, administrators, successors and assigns.

9. Interpretation. Any dispute regarding the interpretation of this Agreement shall be submitted by Optionee or by the Company forthwith to the Company's Board of Directors or committee thereof that is responsible for the administration of the Plan (the "Administrator"), which shall review such dispute at its next regular meeting. The resolution of such a dispute by the Administrator shall be final and binding on the Company and on Optionee.

10. Governing Law; Severability. This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware excluding that body of law pertaining to conflicts of law. Should any provision of this Agreement be determined by a court of law to be illegal or unenforceable, the other provisions shall nevertheless remain effective and shall remain enforceable.

11. Notices. Any notice required or permitted hereunder shall be given in writing and shall be deemed effectively given upon personal delivery or upon deposit in the United States mail by certified mail, with postage and fees prepaid, addressed to the other party at its address as shown below beneath its signature, or to such other address as such party may designate in writing from time to time to the other party.

12. Further Instruments. The Optionee hereby agrees to execute such further instruments and to take such further action as may be reasonably necessary to carry out the purposes and intent of this Agreement including, without limitation, the Investment Representation Statement in the form attached to the Option Agreement as Exhibit B.

13. Delivery of Payment. The Optionee herewith delivers to the Company the full Exercise Price for the Shares, as well as any applicable withholding tax.

14. Drag-Along Transactions. Optionee hereby agrees to the following:

(a) In the event of an Approved Transaction (as defined in that certain Amended and Restated Voting Agreement dated May 4, 2012, by and among the Company and the stockholders listed as parties thereto, as the same may be amended and/or restated from time to time (the "Voting Agreement")), Optionee shall be bound by and shall comply with all terms and conditions contained in Section 4 of the Voting Agreement to the same extent as the Founders (as defined in the Voting Agreement) are bound thereunder.

(b) In addition to and notwithstanding the foregoing, in the event the holders of a majority of the outstanding shares of equity securities of the Company (the "Majority Holders") determine to sell or otherwise dispose of all or substantially all of the assets of the Company or all or fifty percent (50%) or more of the capital stock of the Company, in each case in a transaction constituting a change in control of the Company, to any third party, or to cause the Company to merge with or into or consolidate with any third party (in each case, the "Buyer"), in a *bona fide* negotiated transaction (a "Sale"), Optionee shall, at the request of the Company, (i) sell, transfer and deliver, or cause to be sold, transferred and delivered, to the Buyer, Optionee's Shares (including for this purpose all of Optionee's Shares that presently or as a result of any such transaction may be acquired upon the exercise of the Option (following the payment of the exercise price therefor)) on substantially the same terms applicable to the Majority Holders (with appropriate adjustments to reflect the conversion of convertible securities, the redemption of redeemable securities and the exercise of exercisable securities as well as the relative preferences and priorities of preferred stock) and (ii) execute and deliver such instruments of conveyance and transfer and take such other action, including voting such Shares in favor of any Sale proposed by the Majority Holders and executing any purchase agreements, merger agreements, indemnity agreements, escrow agreements or related documents as the Majority Holders or the Buyer may reasonably require in order to carry out the terms and provisions of this Section 14(b).

(c) The provisions set forth in Sections 14(a) and 14(b) will terminate upon the earlier to occur of (i) a Public Offering or (ii) the completion of a Liquidation (as defined in the Company's Certificate of Incorporation, as the same may be amended and/or restated from time to time).

15. Entire Agreement. The Plan and Option Agreement are incorporated herein by reference. This Agreement, the Plan, the Option Agreement and the Investment Representation Statement constitute the entire agreement of the parties and supersede in their entirety all prior undertakings and agreements of the Company and Optionee with respect to the subject matter hereof.

Accepted by:

FATE THERAPEUTICS, INC.

By: _____

Name: _____

Title: _____

Submitted by:

OPTIONEE

_____

Optionee

Address: _____

_____

EXHIBIT B

INVESTMENT REPRESENTATION STATEMENT

OPTIONEE :

COMPANY : Fate Therapeutics, Inc.

SECURITY : Common Stock

AMOUNT :

DATE :

In connection with the purchase of the above-listed shares of Common Stock (the "Securities") of Fate Therapeutics, Inc., a Delaware corporation (the "Company"), the undersigned ("Optionee") represents to the Company the following:

(a) Optionee is aware of the Company's business affairs and financial condition and has acquired sufficient information about the Company to reach an informed and knowledgeable decision to acquire the Securities. Optionee is acquiring these Securities for investment for Optionee's own account only and not with a view to, or for resale in connection with, any "distribution" thereof within the meaning of the Securities Act of 1933, as amended (the "Securities Act").

(b) Optionee acknowledges and understands that the Securities constitute "restricted securities" under the Securities Act and have not been registered under the Securities Act in reliance upon a specific exemption therefrom, which exemption depends upon, among other things, the bona fide nature of Optionee's investment intent as expressed herein. Optionee understands that, in the view of the Securities and Exchange Commission, the statutory basis for such exemption may be unavailable if Optionee's representation was predicated solely upon a present intention to hold these Securities for the minimum capital gains period specified under tax statutes, for a deferred sale, for or until an increase or decrease in the market price of the Securities, or for a period of one year or any other fixed period in the future. Optionee further understands that the Securities must be held indefinitely unless they are subsequently registered under the Securities Act or an exemption from such registration is available. Optionee further acknowledges and understands that the Company is under no obligation to register the Securities. Optionee understands that the certificate evidencing the Securities will be imprinted with a legend which prohibits the transfer of the Securities unless they are registered or such registration is not required in the opinion of counsel satisfactory to the Company and any other legend required under applicable state securities laws.

(c) Optionee is familiar with the provisions of Rule 701 and Rule 144, each promulgated under the Securities Act, which, in substance, permit limited public resale of "restricted securities" acquired, directly or indirectly from the issuer thereof, in a non-public offering subject to

the satisfaction of certain conditions. Rule 701 provides that if the issuer qualifies under Rule 701 at the time of the grant of the Option to the Optionee, the exercise will be exempt from registration under the Securities Act. In the event the Company becomes subject to the reporting requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), ninety (90) days thereafter (or such longer period as any market stand-off agreement may require) the Securities exempt under Rule 701 may be resold, subject to the satisfaction of certain of the conditions specified by Rule 144, including: (1) the resale being made through a broker in an unsolicited "broker's transaction" or in transactions directly with a market maker (as this term is defined under the Exchange Act); and, in the case of an affiliate, (2) the availability of certain public information about the Company, (3) the amount of Securities being sold during any three (3) month period not exceeding the limitations specified in Rule 144(e), and (4) the timely filing of a Form 144, if applicable.

In the event that the Company does not qualify under Rule 701 at the time of grant of the Option, then the Securities may be resold in certain limited circumstances subject to the provisions of Rule 144, which may require the resale to occur not less than one year after the later of the date the Securities were sold by the Company or the date the Securities were sold by an affiliate of the Company, within the meaning of Rule 144, subject to additional limitations in the case of a resale by an affiliate.

(d) Optionee further understands that in the event all of the applicable requirements of Rule 701 or 144 are not satisfied, registration under the Securities Act, compliance with Regulation A, or some other registration exemption will be required; and that, notwithstanding the fact that Rules 144 and 701 are not exclusive, the Staff of the Securities and Exchange Commission has expressed its opinion that persons proposing to sell private placement securities other than in a registered offering and otherwise than pursuant to Rules 144 or 701 will have a substantial burden of proof in establishing that an exemption from registration is available for such offers or sales, and that such persons and their respective brokers who participate in such transactions do so at their own risk. Optionee understands that no assurances can be given that any such other registration exemption will be available in such event.

Signature of Optionee:

_____

Optionee

Date: ,

FATE THERAPEUTICS, INC.

RESTRICTED COMMON STOCK PURCHASE AGREEMENT

This Restricted Common Stock Purchase Agreement (the "Agreement") is made as of [, 201] by and between Fate Therapeutics, Inc., a Delaware corporation (the "Company"), and [ ] ("Purchaser"). Capitalized terms used but not otherwise defined herein shall have the meanings ascribed to them in the Company's 2007 Equity Incentive Plan, as the same may be amended and/or restated from time to time in accordance with the terms thereof (the "Plan").

1. Sale of Stock. Subject to the terms and conditions of this Agreement, on the Purchase Date (as defined below) the Company will issue and sell to Purchaser, and Purchaser agrees to purchase from the Company, [ ] shares of the Company's Common Stock (the "Shares") at a purchase price of $[ ] per Share for a total purchase price of $[ ]. The term "Shares" refers to the purchased Shares and all securities received in replacement of or in connection with the Shares pursuant to stock dividends or splits, all securities received in replacement of the Shares in a recapitalization, merger, reorganization, exchange or the like, all new, substituted or additional securities or other properties to which Purchaser is entitled by reason of Purchaser's ownership of the Shares, and any other shares of Company Common Stock or other securities that become subject to the terms of this Agreement. The Shares will be held as community property.

2. Purchase. The purchase and sale of the Shares under this Agreement shall occur at the principal office of the Company simultaneously with the execution of this Agreement by the parties or on such other date as the Company and Purchaser shall agree (the "Purchase Date"). On the Purchase Date, the Company will deliver to Purchaser a certificate representing the Shares to be purchased by Purchaser (which shall be issued in Purchaser's name) against payment of the purchase price therefor by Purchaser by (a) check made payable to the Company, (b) cancellation of indebtedness of the Company to Purchaser, or (c) by a combination of the foregoing.

3. Limitations on Transfer. In addition to any other limitation on transfer created by applicable securities laws, Purchaser shall not assign, encumber or dispose of any interest in the Shares while the Shares are subject to the Company's Repurchase Option (as defined below). After any Shares have been released from the Repurchase Option, Purchaser shall not assign, encumber or dispose of any interest in such Shares except in compliance with the provisions below and applicable securities laws.

(a) Repurchase Option.

(i) In the event of the voluntary or involuntary termination of Purchaser's employment or consulting relationship with the Company for any reason (including death or disability), with or without cause, the Company shall upon the date of such termination (the "Termination Date") have an irrevocable, exclusive option (the "Repurchase Option") to repurchase all or any portion of the Shares held by Purchaser as of the Termination Date which have not yet been released from the Company's Repurchase Option at the original purchase price per Share specified in Section 1 (adjusted for any stock splits, stock dividends and the like).

(ii) The Repurchase Option shall be exercised, if at all, by the Company by written notice to Purchaser or Purchaser's executor within six (6) months following the Termination Date and, at the Company's option, (A) by delivery to Purchaser or Purchaser's executor with such notice of a check in the amount of the purchase price for the Shares being purchased, or (B) by cancellation of indebtedness equal to the purchase price for the Shares being repurchased, or (C) by a combination of (A) and (B) so that the combined payment and cancellation of indebtedness equals such purchase price. Upon delivery of such notice and payment of the purchase price in any of the ways described above, the Company shall become the legal and beneficial owner of the Shares being repurchased and all rights and interest therein or related thereto, and the Company shall have the right to transfer to its own name the number of Shares being repurchased by the Company, without further action by Purchaser.

(iii) **[*Note: Sample time-based vesting provision included here; subject to revision based on individual vesting terms.*][**] of the Shares initially shall be subject to the Repurchase Option. [Subject to subsection (iv) below,] [ ] of the Shares (representing [ ] of the Shares, rounded down to the next whole number of shares) shall vest and be released from the Company's Repurchase Option on a monthly basis beginning with the date one month after [ ] (the "Vesting Commencement Date"); provided, that on the date [ ] months after the Vesting Commencement Date, [ ] Shares shall vest and be released from the Company's Repurchase Option, such that all Shares shall be vested and released from the Company's Repurchase Option on the [ ] anniversary of the Vesting Commencement Date, in any event, subject to Purchaser continuing to be a Service Provider to the Company through each such vesting date (the "Vesting Schedule").

(iv) **[*Note: Sample acceleration provision included here; subject to revision based on individual vesting terms.*]**Notwithstanding anything in this Agreement to the contrary, upon [ ], [ ] of the Shares then subject to the Repurchase Option shall vest and be released from the Repurchase Option effective as of [ ], subject to Purchaser continuing to be a Service Provider to the Company through such time.

(b) Right of First Refusal. Before any Shares held by Purchaser or any transferee of Purchaser (either being sometimes referred to herein as the "Holder") may be sold or otherwise transferred (including transfer by gift or operation of law), the Company or its assignee(s) shall have a right of first refusal to purchase the Shares on the terms and conditions set forth in this Section 3(b) (the "Right of First Refusal").

(i) Notice of Proposed Transfer. The Holder of the Shares shall deliver to the Company a written notice (the "Notice") stating: (A) the Holder's bona fide intention to sell or otherwise transfer such Shares; (B) the name of each proposed purchaser or other transferee ("Proposed Transferee"); (C) the number of Shares to be transferred to each Proposed Transferee; and (D) the terms and conditions of each proposed sale or transfer. The Holder shall offer the Shares at the same price (the "Offered Price") and upon the same terms (or terms as similar as reasonably possible) to the Company or its assignee(s).

(ii) Exercise of Right of First Refusal. At any time within 30 days after receipt of the Notice, the Company and/or its assignee(s) may, by giving written notice to the Holder, elect to purchase all or any portion of the Shares proposed to be transferred to any one or more of the Proposed Transferees, at the purchase price determined in accordance with subsection (iii) below.

(iii) Purchase Price. The purchase price ("Purchase Price") for the Shares purchased by the Company or its assignee(s) under this Section 3(b) shall be the Offered Price. If the Offered Price includes consideration other than cash, the cash equivalent value of the non-cash consideration shall be determined by the Board of Directors of the Company in good faith.

(iv) Payment. Payment of the Purchase Price shall be made, at the option of the Company or its assignee(s), in cash (by check), by cancellation of all or a portion of any outstanding indebtedness, or by any combination thereof within 30 days after receipt of the Notice or in the manner and at the times set forth in the Notice.

(v) Holder's Right to Transfer. If all of the Shares proposed in the Notice to be transferred to a given Proposed Transferee are not purchased by the Company and/or its assignee(s) as provided in this Section 3(b), then the Holder may sell or otherwise transfer such Shares to that Proposed Transferee at the Offered Price or at a higher price, provided that such sale or other transfer is consummated within 60 days after the date of the Notice and provided further that any such sale or other transfer is effected in accordance with any applicable securities laws and the Proposed Transferee agrees in writing that the provisions of this Section 3 shall continue to apply to the Shares in the hands of such Proposed Transferee. If the Shares described in the Notice are not transferred to the Proposed Transferee within such period, or if the Holder proposes to change the price or other terms to make them more favorable to the Proposed Transferee, a new Notice shall be given to the Company, and the Company and/or its assignees shall again be offered the Right of First Refusal before any Shares held by the Holder may be sold or otherwise transferred.

(vi) Exception for Certain Family Transfers. Anything to the contrary contained in this Section 3(b) notwithstanding, the transfer of any or all of the Shares during Purchaser's lifetime or on Purchaser's death by will or intestacy to Purchaser's Immediate Family or a trust for the benefit of Purchaser or Purchaser's Immediate Family shall be exempt from the provisions of this Section 3(b). "Immediate Family" as used herein shall mean any child, stepchild, grandchild, parent, stepparent, grandparent, spouse, former spouse, sibling, niece, nephew, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother-in-law or sister-in-law, including adoptive relationships, or any person sharing the Purchaser's household (other than a tenant or an employee). In such case, the transferee or other recipient shall receive and hold the Shares so transferred subject to the provisions of this Section, and there shall be no further transfer of such Shares except in accordance with the terms of this Section 3.

(c) Involuntary Transfer.

(i) Company's Right to Purchase upon Involuntary Transfer. In the event, at any time after the date of this Agreement, of any transfer by operation of law or other

involuntary transfer (including divorce or death, but excluding in the event of death a transfer to Immediate Family as set forth in Section 3(b)(vi) above) of all or a portion of the Shares by the record holder thereof, the Company shall have the right to purchase all of the Shares transferred at the greater of the purchase price paid by Purchaser pursuant to this Agreement or the fair market value of the Shares on the date of transfer. Upon such a transfer, the person acquiring the Shares shall promptly notify the Secretary of the Company of such transfer. The right to purchase such Shares shall be provided to the Company for a period of 30 days following receipt by the Company of written notice by the person acquiring the Shares.

(ii) Price for Involuntary Transfer. With respect to any stock to be transferred pursuant to Section 3(c)(i), the price per Share shall be a price set by the Board of Directors of the Company that will reflect the current value of the stock in terms of present earnings and future prospects of the Company. The Company shall notify Purchaser or his or her executor of the price so determined within 30 days after receipt by it of written notice of the transfer or proposed transfer of Shares. However, if Purchaser does not agree with the valuation as determined by the Board of Directors of the Company, Purchaser shall be entitled to have the valuation determined by an independent appraiser to be mutually agreed upon by the Company and Purchaser and whose fees shall be borne equally by the Company and Purchaser.

(d) Assignment. The right of the Company to purchase any part of the Shares may be assigned in whole or in part to any stockholder or stockholders of the Company or other persons or organizations.

(e) Restrictions Binding on Transferees. All transferees of Shares or any interest therein will receive and hold such Shares or interest subject to the provisions of this Agreement, including, insofar as applicable, the Repurchase Option. In the event of any purchase by the Company hereunder where the Shares or interest are held by a transferee, the transferee shall be obligated, if requested by the Company, to transfer the Shares or interest to the Purchaser for consideration equal to the amount to be paid by the Company hereunder. In the event the Repurchase Option is deemed exercised by the Company pursuant to Section 3(a)(ii) hereof, the Company may deem any transferee to have transferred the Shares or interest to Purchaser prior to their purchase by the Company, and payment of the purchase price by the Company to such transferee shall be deemed to satisfy Purchaser's obligation to pay such transferee for such Shares or interest and also to satisfy the Company's obligation to pay Purchaser for such Shares or interest. Any sale or transfer of the Shares shall be void unless the provisions of this Agreement are satisfied.

(f) Termination of Rights. The Right of First Refusal and the Company's right to repurchase the Shares in the event of an involuntary transfer pursuant to Section 3(c) above shall terminate upon the first sale of Common Stock of the Company to the general public pursuant to a registration statement filed with and declared effective by the Securities and Exchange Commission under the Securities Act of 1933, as amended (the "Securities Act").

(g) Lock-Up Period; Agreement. In connection with the initial public offering of the Company's securities and upon request of the Company or the underwriters managing such offering of the Company's securities, each Purchaser agrees not to sell, make any short sale of, loan, grant any option for the purchase of, or otherwise dispose of any securities of the

Company, however or whenever acquired (other than those included in the registration) without the prior written consent of the Company or such underwriters, as the case may be, for such period of time (not to exceed 180 days but subject to such extension or extensions as may be required by the underwriters in order to publish research reports while complying with the Rule 2711 of the National Association of Securities Dealers, Inc.) from the effective date of such registration statement as may be requested by the Company or such managing underwriters and to execute an agreement reflecting the foregoing as may be requested by the underwriters at the time of the Company's initial public offering.

4. Escrow of Unvested Shares. For purposes of facilitating the enforcement of the provisions of Section 3 above, Purchaser agrees, immediately upon receipt of the certificate(s) for the Shares subject to the Repurchase Option, to deliver such certificate(s), together with an Assignment Separate from Certificate in the form attached to this Agreement as Exhibit A executed by Purchaser and by Purchaser's spouse (if required for transfer), in blank, to the Secretary of the Company, or the Secretary's designee, to hold such certificate(s) and Assignment Separate from Certificate in escrow and to take all such actions and to effectuate all such transfers and/or releases as are in accordance with the terms of this Agreement. Purchaser hereby acknowledges that the Secretary of the Company, or the Secretary's designee, is so appointed as the escrow holder with the foregoing authorities as a material inducement to make this Agreement and that said appointment is coupled with an interest and is accordingly irrevocable. Purchaser agrees that said escrow holder shall not be liable to any party hereof (or to any other party). The escrow holder may rely upon any letter, notice or other document executed by any signature purported to be genuine and may resign at any time. Purchaser agrees that if the Secretary of the Company, or the Secretary's designee, resigns as escrow holder for any or no reason, the Board of Directors of the Company shall have the power to appoint a successor to serve as escrow holder pursuant to the terms of this Agreement.

5. Investment and Taxation Representations. In connection with the purchase of the Shares, Purchaser represents to the Company the following:

(a) Purchaser is aware of the Company's business affairs and financial condition and has acquired sufficient information about the Company to reach an informed and knowledgeable decision to acquire the Shares. Purchaser is purchasing the Shares for investment for his or her own account only and not with a view to, or for resale in connection with, any "distribution" thereof within the meaning of the Securities Act.

(b) Purchaser understands that the Shares have not been registered under the Securities Act by reason of a specific exemption therefrom, which exemption depends upon, among other things, the bona fide nature of Purchaser's investment intent as expressed herein.

(c) Purchaser understands that the Shares are "restricted securities" under applicable U.S. federal and state securities laws and that, pursuant to these laws, Purchaser must hold the Shares indefinitely unless they are registered with the Securities and Exchange Commission and qualified by state authorities, or an exemption from such registration and qualification requirements is available. Purchaser acknowledges that the Company has no obligation to register or qualify the Shares for resale. Purchaser further acknowledges that if an exemption from registration or qualification is available, it may be conditioned on various

requirements including, but not limited to, the time and manner of sale, the holding period for the Shares, and requirements relating to the Company which are outside of the Purchaser's control, and which the Company is under no obligation and may not be able to satisfy.

(d) Purchaser understands that Purchaser may suffer adverse tax consequences as a result of Purchaser's purchase or disposition of the Shares. Purchaser represents that Purchaser has consulted any tax consultants Purchaser deems advisable in connection with the purchase or disposition of the Shares and that Purchaser is not relying on the Company for any tax advice.

6. Restrictive Legends and Stop-Transfer Orders.

(a) Legends. The certificate or certificates representing the Shares shall bear the following legends (as well as any legends required by applicable state and federal corporate and securities laws):

(i) 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 SALE OR DISTRIBUTION 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.

(ii) THE SHARES REPRESENTED BY THIS CERTIFICATE MAY BE TRANSFERRED ONLY IN ACCORDANCE WITH THE TERMS OF AN AGREEMENT BETWEEN THE COMPANY AND THE STOCKHOLDER, A COPY OF WHICH IS ON FILE WITH THE SECRETARY OF THE COMPANY.

(iii) Any legend required to be placed thereon by any appropriate securities commissioner.

(b) Stop-Transfer Notices. Purchaser agrees that, in order to ensure compliance with the restrictions referred to herein, the Company may issue appropriate "stop transfer" instructions to its transfer agent, if any, and that, if the Company transfers its own securities, it may make appropriate notations to the same effect in its own records.

(c) Refusal to Transfer. The Company shall not be required (i) to transfer on its books any Shares that have been sold or otherwise transferred in violation of any of the provisions of this Agreement or (ii) to treat as owner of such Shares or to accord the right to vote or pay dividends to any purchaser or other transferee to whom such Shares shall have been so transferred.

(d) Removal of Legend. When all of the following events have occurred, the Shares then held by Purchaser will no longer be subject to the legend referred to in Section 6(a)(ii): (i) the termination of the Right of First Refusal; (ii) the expiration or termination of the lock-up provisions of Section 3(g) (and of any agreement entered pursuant to Section 3(g)); and (iii) the expiration or exercise in full of the Repurchase Option. After such time, and upon Purchaser's request, a new certificate or certificates representing the Shares not repurchased shall be issued without the legend referred to in Section 6(a)(ii), and delivered to Purchaser.

7. Drag-Along Transactions. Purchaser hereby agrees to the following:

(a) In the event of an Approved Transaction (as defined in that certain Amended and Restated Voting Agreement dated May 4, 2012, by and among the Company and the stockholders listed as parties thereto, as the same may be amended and/or restated from time to time (the "Voting Agreement")), Optionee shall be bound by and shall comply with all terms and conditions contained in Section 4 of the Voting Agreement to the same extent as the Founders (as defined in the Voting Agreement) are bound thereunder.

(b) In addition to and notwithstanding the foregoing, in the event the holders of a majority of the outstanding shares of equity securities of the Company (the "Majority Holders") determine to sell or otherwise dispose of all or substantially all of the assets of the Company or all or fifty percent (50%) or more of the capital stock of the Company, in each case in a transaction constituting a change in control of the Company, to any third party, or to cause the Company to merge with or into or consolidate with any third party (in each case, the "Buyer") in a bona fide negotiated transaction (a "Sale"), Purchaser shall, at the request of the Company, (i) sell, transfer and deliver, or cause to be sold, transferred and delivered, to the Buyer, Purchaser's Shares on substantially the same terms applicable to the Majority Holders (with appropriate adjustments to reflect the conversion of convertible securities, the redemption of redeemable securities and the exercise of exercisable securities as well as the relative preferences and priorities of preferred stock) and (ii) execute and deliver such instruments of conveyance and transfer and take such other action, including voting such Shares in favor of any Sale proposed by the Majority Holders and executing any purchase agreements, merger agreements, indemnity agreements, escrow agreements or related documents as the Majority Holders or the Buyer may reasonably require in order to carry out the terms and provisions of this Section 7(b).

(c) The provisions set forth in Sections 7(a) and 7(b) will terminate upon the earlier to occur of (i) the first sale of Common Stock of the Company to the general public pursuant to a registration statement filed with and declared effective by the Securities and Exchange Commission under the Securities Act and (ii) the completion of a Liquidation (as defined in the Company's Certificate of Incorporation, as the same may be amended and/or restated from time to time).

8. No Employment Rights. Nothing in this Agreement shall affect in any manner whatsoever the right or power of the Company, or a parent or subsidiary of the Company, to terminate Purchaser's employment or consulting relationship, for any reason, with or without cause.

9. Section 83(b) Election. Purchaser understands that Section 83(a) of the Internal Revenue Code of 1986, as amended (the "Code"), taxes as ordinary income the difference between the amount paid for the Shares and the fair market value of the Shares as of the date any restrictions on the Shares lapse. In this context, "restriction" means the right of the Company to buy back the Shares pursuant to the Repurchase Option set forth in Section 3(a) of this Agreement. Purchaser understands that Purchaser may elect to be taxed at the time the Shares are purchased, rather than when and as the Repurchase Option expires, by filing an election under Section 83(b) (an "83(b) Election") of the Code with the Internal Revenue Service within 30 days from the date of purchase. Even if the fair market value of the Shares at the time of the execution of this Agreement equals the amount paid for the Shares, the election must be made to avoid income under Section 83(a) in the future. Purchaser understands that failure to file such an election in a timely manner may result in adverse tax consequences for Purchaser. Purchaser further understands that an additional copy of such election form should be filed with his or her federal income tax return for the calendar year in which the date of this Agreement falls. Purchaser acknowledges that the foregoing is only a summary of the effect of United States federal income taxation with respect to purchase of the Shares hereunder, and does not purport to be complete. Purchaser further acknowledges that the Company has directed Purchaser to seek independent advice regarding the applicable provisions of the Code, the income tax laws of any municipality, state or foreign country in which Purchaser may reside, and the tax consequences of Purchaser's death.

Purchaser agrees that he will execute and deliver to the Company with this executed Agreement a copy of the Acknowledgment and Statement of Decision Regarding Section 83(b) Election (the "Acknowledgment"), attached hereto as Exhibit B. Purchaser further agrees that Purchaser will execute and submit with the Acknowledgment a copy of the 83(b) Election, attached hereto as Exhibit C, if Purchaser has indicated in the Acknowledgment his or her decision to make such an election.

10. Miscellaneous.

(a) Governing Law. This Agreement and all acts and transactions pursuant hereto and the rights and obligations of the parties hereto shall be governed, construed and interpreted in accordance with the laws of the State of California, without giving effect to principles of conflicts of law.

(b) Entire Agreement; Enforcement of Rights. This Agreement sets forth the entire agreement and understanding of the parties relating to the subject matter herein and merges all prior discussions between them. No modification of or amendment to this Agreement, nor any waiver of any rights under this Agreement, shall be effective unless in writing signed by the parties to this Agreement. The failure by either party to enforce any rights under this Agreement shall not be construed as a waiver of any rights of such party.

(c) Severability. If one or more provisions of this Agreement are held to be unenforceable under applicable law, the parties agree to renegotiate such provision in good faith.

In the event that the parties cannot reach a mutually agreeable and enforceable replacement for such provision, then (i) such provision shall be excluded from this Agreement, (ii) the balance of the Agreement shall be interpreted as if such provision were so excluded and (iii) the balance of the Agreement shall be enforceable in accordance with its terms.

(d) Construction. This Agreement is the result of negotiations between and has been reviewed by each of the parties hereto and their respective counsel, if any; accordingly, this Agreement shall be deemed to be the product of all of the parties hereto, and no ambiguity shall be construed in favor of or against any one of the parties hereto.

(e) Notices. Any notice required or permitted by this Agreement shall be in writing and shall be deemed sufficient when delivered personally or sent by fax or 48 hours after being deposited in the U.S. mail, as certified or registered mail, with postage prepaid, and addressed to the party to be notified at such party's address or fax number as set forth below or as subsequently modified by written notice.

(f) Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original and all of which together shall constitute one instrument.

(g) Successors and Assigns. The rights and benefits of this Agreement shall inure to the benefit of, and be enforceable by the Company's successors and assigns. The rights and obligations of Purchaser under this Agreement may only be assigned with the prior written consent of the Company.

(h) Incorporation of Plan. Notwithstanding anything herein to the contrary, this Agreement shall be subject to and governed by all the terms and conditions of the Plan.

[Signature Page Follows]

The parties have executed this Agreement as of the date first set forth above.

FATE THERAPEUTICS, INC.

By: _____

Title: _____

Address: 3535 General Atomics Court, Suite 200
San Diego, CA 92121

PURCHASER ACKNOWLEDGES AND AGREES THAT THE VESTING OF SHARES PURSUANT TO SECTION 3 HEREOF IS EARNED ONLY BY CONTINUING SERVICE AS AN EMPLOYEE OR CONSULTANT AT THE WILL OF THE COMPANY. PURCHASER FURTHER ACKNOWLEDGES AND AGREES THAT NOTHING IN THIS AGREEMENT SHALL CONFER UPON PURCHASER ANY RIGHT WITH RESPECT TO CONTINUATION OF SUCH EMPLOYMENT OR CONSULTING RELATIONSHIP WITH THE COMPANY, NOR SHALL IT INTERFERE IN ANY WAY WITH PURCHASER'S RIGHT OR THE COMPANY'S RIGHT TO TERMINATE PURCHASER'S EMPLOYMENT OR CONSULTING RELATIONSHIP AT ANY TIME, WITH OR WITHOUT CAUSE.

PURCHASER:

[ ]

_____
(Signature)

Address: _____

_____

I, , spouse of [ ], have read and hereby approve the foregoing Agreement. In consideration of the Company's granting my spouse the right to purchase the Shares as set forth in the Agreement, I hereby agree to be irrevocably bound by the Agreement and further agree that any community property or similar interest that I may have in the Shares shall be similarly bound by the Agreement. I hereby appoint my spouse as my attorney-in-fact with respect to any amendment or exercise of any rights under the Agreement.

_____
Spouse of [ ]

EXHIBIT A

ASSIGNMENT SEPARATE FROM CERTIFICATE

FOR VALUE RECEIVED and pursuant to that certain Common Stock Purchase Agreement between the undersigned ("Purchaser") and Fate Therapeutics, Inc. (the "Company") dated (the "Agreement"), Purchaser hereby sells, assigns and transfers unto the Company ( ) shares of the Common Stock of the Company standing in Purchaser's name on the Company's books and represented by Certificate No. , and does hereby irrevocably constitute and appoint to transfer said stock on the books of the Company with full power of substitution in the premises. THIS ASSIGNMENT MAY ONLY BE USED AS AUTHORIZED BY THE AGREEMENT AND THE EXHIBITS THERETO.

Dated: _____

Signature:

_____

[ ]

_____

Spouse of [ ] (if applicable)

Instruction: Please do not fill in any blanks other than the signature line. The purpose of this assignment is to enable the Company to exercise its repurchase option set forth in the Agreement without requiring additional signatures on the part of Purchaser.

EXHIBIT B

ACKNOWLEDGMENT AND STATEMENT OF DECISION
REGARDING SECTION 83(b) ELECTION

The undersigned has entered a stock purchase agreement with Fate Therapeutics, Inc., a Delaware corporation (the "Company"), pursuant to which the undersigned is purchasing [ ] shares of Common Stock of the Company (the "Shares"). In connection with the purchase of the Shares, the undersigned hereby represents as follows:

1. The undersigned has carefully reviewed the stock purchase agreement pursuant to which the undersigned is purchasing the Shares.

2. The undersigned either [check and complete as applicable]:

(a) _____ has consulted, and has been fully advised by, the undersigned's own tax advisor, , whose business address is , regarding the federal, state and local tax consequences of purchasing the Shares, and particularly regarding the advisability of making elections pursuant to Section 83(b) of the Internal Revenue Code of 1986, as amended (the "Code") and pursuant to the corresponding provisions, if any, of applicable state law; or

(b) _____ has knowingly chosen not to consult such a tax advisor.

3. The undersigned hereby states that the undersigned has decided [check as applicable]:

(a) _____ to make an election pursuant to Section 83(b) of the Code, and is submitting to the Company, together with the undersigned's executed Common Stock Purchase Agreement, an executed form entitled "Election Under Section 83(b) of the Internal Revenue Code of 1986;" or

(b) _____ not to make an election pursuant to Section 83(b) of the Code.

4. Neither the Company nor any subsidiary or representative of the Company has made any warranty or representation to the undersigned with respect to the tax consequences of the undersigned's purchase of the Shares or of the making or failure to make an election pursuant to Section 83(b) of the Code or the corresponding provisions, if any, of applicable state law.

Date: _____ _____
[ ]

Date: _____ _____
Spouse of [ ]

EXHIBIT C

ELECTION UNDER SECTION 83(b)
OF THE INTERNAL REVENUE CODE OF 1986

The undersigned taxpayer hereby elects, pursuant to Section 83(b) of the Internal Revenue Code, to include in taxpayer's gross income or alternative minimum taxable income, as applicable, for the current taxable year, the amount of any income that may be taxable to taxpayer in connection with taxpayer's receipt of the property described below:

1. The name, address, taxpayer identification number and taxable year of the undersigned are as follows:

   NAME OF TAXPAYER: _____

   NAME OF SPOUSE: _____

   ADDRESS: _____

   _____

   IDENTIFICATION NO. OF TAXPAYER: _____

   IDENTIFICATION NO. OF SPOUSE: _____

   TAXABLE YEAR: _____

2. The property with respect to which the election is made is described as follows:

   [ ] shares of the Common Stock of Fate Therapeutics, Inc., a Delaware corporation (the "Company").

3. The date on which the property was transferred is: , 201

4. The property is subject to the following restrictions:

   Repurchase option at cost in favor of the Company upon termination of taxpayer's employment or consulting relationship with the Company.

5. The fair market value at the time of transfer, determined without regard to any restriction other than a restriction which by its terms will never lapse, of such property is: $[ ].

6. The amount (if any) paid for such property: $[ ].

The undersigned has submitted a copy of this statement to the person for whom the services were performed in connection with the undersigned's receipt of the above-described property. The transferee of such property is the person performing the services in connection with the transfer of said property.

The undersigned understands that the foregoing election may not be revoked except with the consent of the Commissioner.

Dated: _____ _____
Taxpayer

Dated: _____ _____
Spouse of Taxpayer

RECEIPT

Fate Therapeutics, Inc. hereby acknowledges receipt of a check in the amount of $ given by [ ] as consideration for Certificate No. for [ ] shares of Common Stock of Fate Therapeutics, Inc.

Dated: _____

FATE THERAPEUTICS, INC.

By: _____

Title: _____

RECEIPT AND CONSENT

The undersigned hereby acknowledges receipt of a photocopy of Certificate No. for [ ] shares of Common Stock of Fate Therapeutics, Inc. (the "Company").

The undersigned further acknowledges that the Secretary of the Company, or his or her designee, is acting as escrow holder pursuant to the Common Stock Purchase Agreement Purchaser has previously entered into with the Company. As escrow holder, the Secretary of the Company, or his or her designee, holds the original of the aforementioned certificate issued in the undersigned's name.

Dated: _____

_____

[ ]

EXHIBIT 10.3

October 2, 2012

By E-mail

Christian Weyer

Re: Fate Therapeutics, Inc. Employment Agreement

Dear Chris:

On behalf of Fate Therapeutics, Inc. (the "Company"), I am pleased to offer you the position of the Company's President and Chief Executive Officer ("CEO"). The terms and conditions of your employment are set forth below.

1. **Position**. As CEO and President of the Company, you will report to the Company's Board of Directors (the "Board"). This is a full-time position. By signing this letter agreement (this "Agreement"), you confirm to the Company that you have no contractual commitments or other legal obligations that would or may prohibit you from performing your duties for the Company. While you render services to the Company, you will not engage in any other employment, consulting or other business activity (whether full-time or part-time) including board service, unless otherwise approved in writing by the Board; *provided*, that you may engage in religious, charitable, or other community activities so long as such services or activities do not materially interfere or conflict with your obligations to the Company. In addition, in connection with your role as CEO and President, you will be elected, subject to the Company's receipt of all necessary stockholder approvals, to serve as a member of the Board.

2. **Start Date**. Your employment as CEO and President will begin on October 8, 2012, unless another date is mutually agreed upon by you and the Company. For purposes of this Agreement, the actual first day of your employment as CEO and President will be referred to as the "Start Date."

3. **Salary**. Commencing on the Start Date, the Company will pay you a base salary at the initial annualized rate of $350,000 per year, payable in accordance with the Company's standard payroll schedule and subject to applicable deductions and withholdings in compliance with federal, state and local laws. Your base salary will be subject to periodic review and adjustments in accordance with the Company's standard review policies and at the discretion of the Board or the Compensation Committee thereof (the "Compensation Committee").

4. **Bonus Compensation**. During your employment, beginning with the calendar year 2013, you will be considered annually for a bonus target of up to 50% of your then-current base salary; provided, that any bonus awarded for calendar year 2013 will also take into account your employment for a pro-rated portion of calendar year 2012 (commencing on the Start Date). The amount of any bonus actually awarded will be determined by the Board or the

Compensation Committee in its discretion, based on its assessment of the Company's performance against goals established annually by the Board or the Compensation Committee after consultation with you. You must be employed with the Company on the date a bonus is paid to earn that bonus; provided, that the Company shall pay any bonus earned by you for a particular calendar year on or before April 15th of the next calendar year.

5. **Equity**.

(a) In connection with the commencement of your role as CEO and President, subject to Board approval which shall be obtained at the first board meeting following your Start Date, the Company will grant to you an option to purchase 2,835,263 shares of the Company's Common Stock (the "Time-Based Grant"). The Time-Based Grant will be issued at an exercise price equal to the fair market value per share of Common Stock on the date of grant, as determined by the Board. You will have the right to early exercise the Time-Based Grant, in whole or in part, prior to vesting, with the shares issued upon the exercise of any unvested portion of the Time-Based Grant to be subject to a repurchase right on the same vesting schedule. All of the option shares issued under the Time-Based Grant (collectively, the "Time-Based Option Shares") will initially be unvested. 25% of the Time-Based Option Shares will vest on the first anniversary of the Start Date, and the remaining 75% of the Time-Based Option Shares will vest over three years thereafter in equal monthly installments until the fourth anniversary of the Start Date; provided, that in the event of a Change of Control, 50% of any unvested Time-Based Option Shares will vest immediately prior to the Change of Control, and additionally, if your employment is terminated at any time after a Change of Control without Cause or for Good Reason, the vesting of all of the then-remaining unvested Time-Based Option Shares will immediately accelerate. The Time-Based Grant will be subject in all other respects to the terms and conditions set forth in the Company's 2007 Equity Incentive Plan, as may be amended from time to time (the "Plan"), and associated stock option agreement (collectively the "Equity Documents").

(b) In addition, subject to Board approval which shall be obtained at the first board meeting following your Start Date, the Company will grant to you an option to purchase 1,417,631 shares of the Company's Common Stock (the "Performance-Based Grant"). The Performance-Based Grant will be issued at an exercise price equal to the fair market value per share of Common Stock on the date of grant, as determined by the Board. You will have the right to early exercise the Performance-Based Grant, in whole or in part, prior to vesting, with the shares issued upon the exercise of any unvested portion of the Performance - Based Grant to be subject to a repurchase right on the same vesting schedule. All option shares issued under the Performance-Based Grant (collectively the "Performance-Based Option Shares") will initially be unvested and will be subject to vesting as follows:

(i) 354,408 Performance-Based Option Shares (the "Transaction Milestone Performance-Based Option Shares") will vest over two years in equal monthly installments commencing on the earlier of (x) the date one month after the achievement of the Transaction Milestone or (y) the date one month after the closing of a Change of Control, so that all of the Transaction Milestone Performance-Based Option Shares will be vested on the second anniversary of the achievement of the Transaction Milestone or the second anniversary of

the closing of the Change of Control, as applicable; provided, that if your employment is terminated without Cause or for Good Reason at any time after the earlier to occur of the Transaction Milestone or a Change of Control, the vesting of all of the then-remaining unvested Transaction Milestone Performance-Based Option Shares will immediately accelerate as of the date of termination of your employment.

(ii) Following the first to occur of (x) completion of an underwritten initial public offering of the Company's Common Stock pursuant to a registration statement filed and declared effective under the Securities Act of 1933, as amended (an "IPO") or (y) a Change of Control ((x) and (y) each, an "Exit Event"):

(A) 354,408 Performance-Based Option Shares will vest in full upon the achievement of an Exit Value of at least $3.00 (subject to appropriate adjustment for stock splits, combinations, recapitalizations and the like);

(B) An additional 354,408 Performance-Based Option Shares will vest in full upon the achievement of an Exit Value of at least $5.00 (subject to appropriate adjustment for stock splits, combinations, recapitalizations and the like); and

(C) An additional 354,407 Performance-Based Option Shares will vest in full upon the achievement of an Exit Value of at least $7.00 (subject to appropriate adjustment for stock splits, combinations, recapitalizations and the like).

The Performance-Based Grant will be subject in all other respects to the terms and conditions set forth in the Equity Documents.

(c) You acknowledge that any portion of the Time-Based Grant and/or the Performance-Based Grant will be deemed to be "incentive stock options" within the meaning of the Internal Revenue Code of 1986, as amended (the "Code"), only to the extent permitted under the Code and will otherwise be deemed to be "non qualified" stock options. For example and without limiting the generality of the foregoing, the maximum fair market value (determined as of the date of grant) of stock for which "incentive stock options" may become exercisable within a calendar year is $100,000.

(d) If, upon a Change of Control, (i) any portion of your Time-Based Grant or Performance-Based Grant remain unvested but is eligible under the terms set forth in Section 5(a) or 5(b) above for continued or accelerated vesting, and (ii) such unvested portion(s) of the Time-Based Grant or the Performance-Based Grant are not assumed or substituted on substantially the same terms by the acquirer in connection with such Change of Control, then the Time-Based Grant and the Performance-Based Grant will terminate upon the closing of the Change of Control and the portions of the Time-Based Grant or the Performance-Based Grant that were unvested at the time of such closing but eligible for continued or accelerated vesting thereafter will be converted into the right to receive the consideration payable to holders of Common Stock of the Company in such transaction (net of the applicable exercise price), which right will be subject to the vesting and acceleration provisions relating to such Time-Based Grant or Performance-Based Grant set forth in Section 5(a) or 5(b), as applicable. Such consideration

will be held in escrow for your benefit and any decisions regarding its disposition or management shall be made by you until released from escrow to you upon vesting or otherwise forfeited by you. For the avoidance of doubt:

(i) upon the closing of a Change of Control, the Performance-Based Grant will terminate with respect to the number of Performance-Based Option Shares for which each applicable Exit Value is not achievable if the aggregate potential consideration in such Change of Control would not allow for the achievement of any of the applicable Exit Values set forth in clauses (A) through (C) of Section 5(b)(ii); and

(ii) upon an IPO, the Performance-Based Grant will remain outstanding, with all unvested Performance-Based Option Shares eligible for continued or accelerated vesting upon a subsequent Change of Control in accordance with the terms and conditions of Section 5(b), subject to clause (i) above.

(e) Notwithstanding anything to the contrary contained in the Plan or hereunder, the Company will not amend or terminate any of the Equity Documents in a manner that impairs your rights thereunder (including without limitation any rights to continued or accelerated vesting, whether before or after a Change of Control) without your prior written consent.

6. **Benefits/Vacation**. You will be eligible to participate in the Company's employee benefits and insurance programs generally made available to its full-time senior management employees. Details of these benefits programs, including mandatory employee contributions, and, if applicable, waiting periods, will be made available to you when you start. You initially will be entitled to earn up to eighteen (18) days of paid time off per year, with accrual capped at 1.0 times the annual limit, in accordance with and subject to the Company's vacation policy, as it may be revised from time to time.

7. **At-Will Employment, Accrued Obligations; Severance**. Your employment is "at will," meaning you or the Company may terminate it at any time for any or no reason. In the event of the termination of your employment for any reason, the Company will pay you the Accrued Obligations, defined as (1) your base salary through the date of termination, any earned but unpaid bonus, and any accrued, unused vacation, (2) the amount of any expenses properly incurred by you on behalf of the Company prior to any such termination and not yet reimbursed. In addition, in the event the Company terminates your employment without Cause or you resign for Good Reason, the Company will provide you with the following termination benefits (the "Termination Benefits"):

(a) continuation of your base salary for a period of twelve (12) months after the effective date of termination of your employment with the Company (the "Severance Period") at the salary rate then in effect ("Salary Continuation Payments") (solely for purposes of Section 409A of the Code, each Salary Continuation Payment is considered a separate payment); provided that if the date of termination of your employment occurs before a Change of Control, then in the event that you commence any employment or self-employment during the Severance Period, the remaining amount of Salary Continuation Payments due pursuant to this Section 7(a)

for the period from the commencement of such employment or self-employment to the end of the Severance Period will be reduced dollar-for-dollar by the amount received for such employment or self-employment. If the date of termination of your employment occurs before a Change of Control, you will give prompt notice of the date of commencement of any employment or self-employment during the Severance Period and will respond promptly to any reasonable inquiries from the Company concerning any employment or self-employment in which you engage during the Severance Period;

(b) continuation of group health plan benefits to the extent authorized by and consistent with 29 U.S.C. § 1161 et seq. (commonly known as "COBRA"), with the cost of the regular premium for such benefits shared in the same relative proportion by the Company and you as in effect on the date of termination until the earlier of (i) the end of the Severance Period; and (ii) the date you become eligible for health benefits through another employer or otherwise become ineligible for COBRA.

Notwithstanding anything to the contrary in this Agreement, you will not be entitled to any Termination Benefits unless you first (i) enter into, do not revoke, and comply with the terms of a separation agreement in a form acceptable to the Company which will include a release against the Company and related persons and entities in the form attached hereto as Exhibit C (the "Release"), which must become effective and irrevocable within sixty (60) days after the date of termination of your employment; (ii) resign from any and all positions, including, without implication of limitation, as a director, trustee, and officer, that you then hold with the Company and any Affiliates; and (iii) return all Company property and comply with any instructions related to deleting and purging duplicates of such Company property. The Salary Continuation Payments will commence within sixty (60) days after the date of termination and will be made on the Company's regular payroll dates; provided, however, that if the sixty (60)-day period begins in one calendar year and ends in a second calendar year, the Salary Continuation Payments will begin to be paid in the second calendar year. In the event you miss a regular payroll period between the date of termination and first Salary Continuation Payment, the first Salary Continuation Payment will include a "catch up" payment.

8. **Additional Agreements**.

(a) As a material condition of this Agreement, you agree to execute and abide by the Employee Proprietary Information and Inventions Agreement, attached hereto as Exhibit A, the terms of which are incorporated by reference herein.

(b) In connection with your appointment as an officer and director of the Company, the Company will enter into an Indemnification Agreement with you, in the form attached hereto as Exhibit B.

9. **Definitions.** For purposes of this Agreement:

"Affiliates" means all persons and entities directly or indirectly controlling, controlled by or under common control with the Company, where control may be by management authority, equity interest or otherwise.

"Cause" means any of the following: (i) embezzlement, misappropriation of material assets or property of the Company; (ii) the conviction of, or a plea of guilty or *nolo contendere* to, a felony, or any crime involving moral turpitude, theft or the violation of applicable securities laws; (iii) your ongoing and repeated failure or refusal to perform or neglect of your lawful duties and responsibilities to the Company, which continues after you have received prior written notice from the Board of such failure or refusal and has not been cured by you within thirty (30) days of such notice; or (iv) your breach of this Agreement or any other agreement with the Company entered into in connection with this Agreement, which breach, if capable of cure, is not cured within thirty (30) days after your receipt of written notice thereof or otherwise within the applicable notice and cure periods, if any, provided in the applicable agreement.

"Change of Control" means (i) the liquidation, dissolution or winding up of the Company; (ii) the acquisition of the Company by means of any transaction or series of related transactions (including, without limitation, any reorganization, merger, share exchange or consolidation), provided that the applicable transaction will not be deemed a Change of Control unless the Company's stockholders constituted immediately prior to such transaction hold less than fifty percent (50%) of the voting power of the surviving or acquiring entity; or (iii) the sale, conveyance or other disposal of all or substantially all of the property or business of the Company; provided that a Change of Control will not include (x) a merger or consolidation with a wholly-owned subsidiary of the Company, (y) a merger effected exclusively for the purpose of changing the domicile of the Company or (z) any transaction or series of related transactions principally for bona fide equity financing purposes in which the Company is the surviving corporation.

"Exit Value" means (i) in the case of a Change of Control, the net cash payments or value of other consideration paid to the Company or its stockholders on a fully-diluted, per share basis or (ii) in the case of an IPO, the forty-five (45) consecutive trading-day volume weighted average price of the Company's Common Stock at any time following the expiration of all applicable "lock-up" periods.

"Good Reason" means that you have complied with the "Good Reason Process" (hereinafter defined) following the occurrence of any of the following actions undertaken by the Company without your express prior written consent: (i) the material diminution in your responsibilities, authority and function; (ii) a material reduction in your base salary, provided, however, that Good Reason will not be deemed to have occurred in the event of a reduction in your base salary that is pursuant to a salary reduction program affecting substantially all of the senior level employees of the Company and that does not adversely affect you to a greater extent than other similarly situated employees; or (iii) a change in the geographic location at which you must regularly report to work and perform services of more than fifty (50) miles, except for required travel on the Company's business.

"Good Reason Process" means that (i) you have reasonably determined in good faith that a "Good Reason" condition has occurred; (ii) you have notified the Company in writing of the first occurrence of the Good Reason condition within sixty (60) days of the first occurrence of such condition; (iii) you have cooperated in good faith with the Company's efforts, for a period not less than thirty (30) days following such notice (the "Cure Period"), to remedy the condition

if it is of a nature that can be remedied; (iv) notwithstanding such efforts, the Good Reason condition continues to exist; and (v) you terminate your employment within sixty (60) days after the end of the Cure Period. If the Company cures the Good Reason condition during the Cure Period, Good Reason will be deemed not to have occurred.

"Transaction Milestone" means the Company's execution of one or more strategic partnership or license agreements approved by the Board, in which the Company is reasonably expected to receive within four (4) years of execution at least $30 million (determined in the aggregate, in the case of multiple partnerships or license agreements) in unrestricted cash available for use outside the program(s) subject to the applicable agreements (including all up-front, milestone / option-based payments, and other similar forms of payments, as well as equity investment funding); provided that such amount may be lowered by the Board in its sole discretion.

10. **Taxes; Section 409A**. All forms of compensation referred to in this Agreement are subject to reduction to reflect applicable withholding and payroll taxes and other deductions required by law. You hereby acknowledge that the Company does not have a duty to design its compensation policies in a manner that minimizes your tax liabilities, and you will not make any claim against the Company or the Board related to tax liabilities arising from your compensation. Anything in this Agreement to the contrary notwithstanding, if at the time of your separation from service within the meaning of Section 409A of the Code, the Company determines that you are a "specified employee" within the meaning of Section 409A(a)(2)(B)(i) of the Code, then to the extent any payment or benefit that you becomes entitled to under this Agreement on account of your separation from service would be considered deferred compensation subject to the 20 percent additional tax imposed pursuant to Section 409A(a) of the Code as a result of the application of Section 409A(a)(2)(B)(i) of the Code, such payment will not be payable and such benefit will not be provided until the date that is the earlier of (A) six (6) months and one day after your separation from service, or (B) your death. If any such delayed cash payment is otherwise payable on an installment basis, the first payment will include a catch-up payment covering amounts that would otherwise have been paid during the six (6)-month period but for the application of this provision, and the balance of the installments will be payable in accordance with their original schedule. All in-kind benefits provided and expenses eligible for reimbursement under this Agreement will be provided by the Company or incurred by you during the time periods set forth in this Agreement. All reimbursements will be paid as soon as administratively practicable, but in no event will any reimbursement be paid after the last day of the taxable year following the taxable year in which the expense was incurred. The amount of in-kind benefits provided or reimbursable expenses incurred in one taxable year will not affect the in-kind benefits to be provided or the expenses eligible for reimbursement in any other taxable year. Such right to reimbursement or in-kind benefits is not subject to liquidation or exchange for another benefit. To the extent that any payment or benefit described in this Agreement constitutes "non-qualified deferred compensation" under Section 409A of the Code, and to the extent that such payment or benefit is payable upon your termination of employment, then such payments or benefits will be payable only upon your "separation from service." The determination of whether and when a separation from service has occurred will be made in accordance with the presumptions set forth in Treasury Regulation Section 1.409A-1(h). The

Company and you intend that this Agreement will be administered in accordance with Section 409A of the Code. To the extent that any provision of this Agreement is ambiguous as to its compliance with Section 409A of the Code, the provision will be read in such a manner so that all payments hereunder comply with Section 409A of the Code. The Company makes no representation or warranty and will have no liability to you or any other person if any provisions of this Agreement are determined to constitute deferred compensation subject to Section 409A of the Code but do not satisfy an exemption from, or the conditions of, such Section.

11. **Entire Agreement; Amendment**. This Agreement (including the Exhibits) and the Equity Documents constitutes the complete agreement between you and the Company, contain all of the terms of your employment with the Company and supersede any prior agreements, representations or understandings (whether written, oral or implied) between you and the Company. This Agreement may not be modified or amended, and no breach will be deemed to be waived, unless agreed to in writing by you and a duly authorized officer or board member of the Company.

12. **Governing Law; Dispute Resolution**. The terms of this Agreement will be governed and construed under the laws of the State of California, without regard to the conflict of laws principles thereof. To ensure rapid and economical resolution of any disputes which may arise concerning your employment, you and the Company agree that any and all claims, disputes or controversies of any nature whatsoever arising out of, or relating to, this Agreement, your employment with the Company, or the termination of your employment with the Company, or any other matter or claim arising out of or relating to your employment or termination of employment will be resolved by confidential, final and binding arbitration conducted before a single arbitrator with Judicial Arbitration and Mediation Services, Inc. ("JAMS") in San Diego, California, under the then-applicable JAMS rules. You and the Company acknowledge that by agreeing to this arbitration procedure, you and the Company each waive the right to resolve any such dispute through a trial by jury, judge or administrative proceeding. The Company will bear JAMS' arbitration fees and administrative costs. The arbitrator will: (a) have the authority to compel adequate discovery for the resolution of the dispute and to award such relief as would otherwise be permitted by law; (b) consider and rule upon any motion for summary judgment; and (c) issue a written arbitration decision including the arbitrator's essential findings and conclusions and a statement of the award. The arbitrator, and not a court, will also be authorized to determine whether the provisions of this paragraph apply to a dispute, controversy, or claim sought to be resolved in accordance with these arbitration procedures.

13. **Assignment**. Neither you nor the Company may make any assignment of this Agreement or any interest in it, by operation of law or otherwise, without the prior written consent of the other; ***provided***, however, that the Company may assign its rights and obligations under this Agreement without your consent to one of its Affiliates or to any entity with whom the Company will hereafter effect a reorganization, consolidate with, or merge into or to whom it transfers all or substantially all of its properties or assets (including any Change of Control). This Agreement will inure to the benefit of and be binding upon you and the Company, and each of our respective successors, executors, administrators, heirs and permitted assigns.

14. **Miscellaneous**. The headings and captions in this Agreement are for convenience only and in no way define or describe the scope or content of any provision of this Agreement. The words "include," "includes" and "including" when used herein will be deemed in each case to be followed by the words "without limitation." This Agreement may be executed in two or more counterparts, each of which will be an original and all of which together will constitute one and the same instrument.

15. **Other Terms**. As with all employees, our offer to you is contingent on your submission of satisfactory proof of your identity and your legal authorization to work in the United States.

16. **Acceptance of Offer**. If this offer is acceptable to you, kindly indicate your agreement to its terms and conditions by signing and returning a copy of this letter and a completed Employee Proprietary Information and Inventions Agreement attached hereto by the close of business on October 5, 2012, it being understood that this offer will expire if not accepted on or before such date (although such expiration date may be extended at the discretion of the Company). Upon your signature below, this Agreement will become our binding agreement with respect to your employment, containing all terms and conditions as to the specifics thereto.

[*Remainder of page intentionally left blank*]

We are excited about the prospect of having you join the Company in this capacity and look forward to receiving your acknowledgment below.

Very truly yours,

By: /s/ William Rastetter
William Rastetter
Chairman

I have read and accept this employment offer and the terms of this Agreement:

/s/ Christian Weyer
Christian Weyer

Dated: 02 OCTOBER 2012

EXHIBIT 10.4

FATE THERAPEUTICS, INC.

September 17, 2007

Scott Wolchko

Re: Offer Letter and Employment Terms

Dear Scott:

On behalf of Fate Therapeutics, Inc. (the "Company"), I am pleased to offer you the position of Chief Financial Officer. The terms of your employment relationship with the Company are as set forth below:

1. **Position**. You will serve in a full-time capacity as Chief Financial Officer, reporting to the Company's Board of Directors until such time as a Chief Executive Officer is hired by the Company, and thereafter to the Chief Executive Officer.

2. **Base Salary and Performance Bonus**. You will be paid a base salary at the annual rate of $160.000.00. Your salary will be payable in accordance with the Company's standard payroll policies to be established (subject to normal required withholding). You will receive a vacation and benefit package similar to that provided to all other employees. You will also be eligible (i) to receive, on or before December 31, 2008, an increase in your annual base salary of up to 15% of your initial base salary, upon your achievement of performance goals as determined by the Company's Board of Directors and (ii) to participate in the Company's executive cash bonus program, should the Company institute such a program after the date of this letter. (For the avoidance of doubt, you acknowledge that no such program currently exists and that the Company presently has no plans to adopt or institute any such program.)

3. **Time Commitment**. After December 31, 2007, you will work for the Company in a full-time capacity. From the Commencement Date (as defined below) through December 31, 2007 (the "Initial Period"), you may elect to work in a part-time capacity; provided, however, that you shall devote no less than fifty percent (50%) of your working time to the Company during the Initial Period. In the event you elect to work in a part-time capacity during the Initial Period, your base salary and performance bonus (if any) as set forth in Section 2 of this letter, and the vesting schedule of your Company Equity, as defined in Section 4 of this offer letter, shall be prorated during the Initial Period as determined by the Company.

4. **Equity**.

   4.1 Subject to the approval of the Company's Board of Directors (the "Board"), the Company shall issue to you 125,000 shares of the Company's Common Stock at a purchase price (the "Stock Purchase Price") equal to the fair market value of the Company's Common Stock (the "Initial Stock Grant"). For the avoidance of doubt, such amount of shares is anticipated to be equal to

0.75% of the Fully Diluted Capitalization (as defined below) of the Company immediately following the final closing of its first equity financing (the "Series A Financing"), where such capitalization shall include for the purposes of this calculation all shares of capital stock, including those shares reserved for issuance under any equity incentive plans and upon the conversion or exchange of preferred stock, warrants, and the like (the "Fully Diluted Capitalization"). The Company will have a right to repurchase 100% of the Initial Stock Grant at the Stock Purchase Price, which repurchase right shall lapse (i) with respect to 4/48ths of such shares, on the four month anniversary of the Commencement Date (the "Vesting Commencement Date"), and (ii) with respect to the remaining 44/48ths of such shares, in equal monthly installments over the forty-four (44) month period as measured from the Vesting Commencement Date, provided you continue to provide service through such time.

4.2 Subject to the approval of the Board, the Company will also issue to you 41,667 shares of the Company's Common Stock at the Stock Purchase Price equal to the fair market value of the Company's Common Stock (the "Milestone Grant"). For the avoidance of doubt, such amount of shares is anticipated to be equal to 0.25% of the Company's Fully Diluted Capitalization immediately following the final closing of the Series A Financing. The Company will have a right to repurchase 100% of the Milestone Grant at the Stock Purchase Price, which repurchase right shall lapse with respect to l/4th of such shares upon the occurrence of each major corporate milestone, where four (4) such milestones are to be reasonably determined by the Board within one hundred and eighty (180) days of the Commencement Date; provided that, in the event you continue to provide service to the Company upon the five (5) year anniversary date of the Commencement Date, the Company's repurchase right in connection with the Milestone Grant shall immediately lapse with respect to all such shares that remain subject to the Company's right of repurchase upon such anniversary (irrespective of, for the avoidance of doubt, whether or not any such corporate milestones have occurred at such point in time).

5. **Severance**. If within twelve (12) months of a Change of Control (as defined below), your employment is terminated at any time (i) involuntarily without Cause (as defined below) or (ii) for Good Reason (as defined below), subject to the execution by you of a customary release, (A) you shall receive a cash severance payment equal to six months of your then-current annual base salary, and (B) you shall be reimbursed for six months of COBRA benefits.

6. **Change in Control Event**. If a Change of Control occurs, the Company's repurchase rights with respect to the Initial Stock Grant and the Milestone Grant shall immediately lapse with respect to a number of shares such that only 25% of such shares shall remain subject to the Company's right of repurchase; provided that, at the time of the Change of Control if fewer than 25% of such shares are subject to the Company's right of repurchase, no such immediate lapse shall occur. If your employment is terminated involuntarily without Cause or for Good Reason during the twelve (12) month period following a Change in Control, the Company's repurchase right with respect to the Initial Stock Grant and the Milestone Grant shall immediately lapse with respect to all shares that remain subject to the Company's right of repurchase upon such termination.

7. **Definitions**.

"Change of Control" shall be defined as the date of the consummation of a merger or consolidation of the Company with any other corporation which results in the voting securities of the Company outstanding immediately prior thereto failing to represent (cither by remaining outstanding or by being converted into voting securities of the surviving entity) more than fifty percent (50%) of the total voting power represented by the voting securities of the Company thereafter or such surviving entity outstanding immediately after such merger or consolidation, or the date of the consummation of the sale or disposition by the Company of all or substantially all the Company's assets.

"Cause" shall be defined as the occurrence of any of the following, as determined by the Board: (i) conviction of any felony or any crime involving fraud, dishonesty or moral turpitude under the laws of the United States or any state thereof; (ii) attempted commission of, or participation in, a fraud against the Company; (iii) material violation of any contract or agreement between you and the Company or any statutory duty owed to the Company, unless such violation is cured to the reasonable satisfaction of the Company within ten (10) days after the delivery to you of written notice specifying such violation; or (iv) repeated or habitual drug or alcohol use that materially and adversely interferes with the performance of your services to the Company.

"Good Reason" shall be defined as: (i) a reduction by fifteen (15) or greater percent by the Company or any successor thereof of your then-current base salary (provided however, that in the event that the base salary of all senior management are similarly reduced, such material reduction will not constitute Good Reason); (ii) a material reduction by the Company or any successor thereof in your kind or level of employee benefits with the result that your overall benefits package is significantly reduced (provided however, that in the event the benefits of all senior management are similarly reduced, such material reduction will not constitute Good Reason); or (iii) your relocation to a facility or a location more than fifty (50) miles from the Company's headquarters as of the date of this letter. Notwithstanding the above, none of the following shall be considered Good Reason: (x) the mere occurrence of a Change of Control; (y) any change in the identity of the surviving corporation in the event of a Change of Control; or (z) any change in the status of the surviving corporation after a Change of Control as a private or public company.

8. **Benefits**. You shall be entitled to the Company's basic employment benefits available to all Company employees, as may exist in the future. You acknowledge that participation in Company benefit programs may require payroll deductions and/or direct contributions by you.

9. **Standard Employee Agreements**. You will be required to sign and comply with the Company's standard form of Employee Proprietary Information and Invention Assignment Agreement (the "Employee NDA") which shall require, among other provisions, the assignment of patent and other intellectual property rights to any invention or other trade secrets created during your employment at the Company and non-disclosure of proprietary information. Your employment will be contingent upon and not be deemed effective until you have executed and returned the Employee NDA to the Company, hi addition, you will not use or bring from any previous employer any confidential information, trade secrets, or proprietary materials or processes of such former employer. You also agree that, during the term of your employment with the Company, you will not actively engage in any other employment, occupation, consulting or other business directly or indirectly related to the business in which the Company is now involved or becomes involved during the term of your employment, nor will you engage in any other activities that conflict with your obligations to the Company. You will also be required to sign the Company Equity agreements in order to receive the Company Equity contemplated in this letter.

10. **At-Will Employment**. As is true for all employees, you will be an employee-at-will, meaning that either you or the Company may terminate your employment relationship at any time, without notice, for any reason or no reason. Your participation in any stock purchase or benefit program is not to be regarded as assuring you continuing employment for any particular period of time.

11. **Commencement Date**. Your employment with the Company will commence September 17, 2007.

12. **Federal Immigration Law**: For the purposes of federal immigration law, you will be required to provide the Company documentary evidence of your identity and eligibility for employment in the United States, Such documentation must be provided to us within three (3) business days of your commencement date, or our employment relationship with you may be terminated.

13. **Entire Agreement**: This offer letter, together with the agreements relating to your purchase of common stock of the Company and your Employee NDA, shall constitute the entire agreement between you and the Company and supersedes all other agreements or understandings.

14. **No Inconsistent Contractual Commitments**: By signing this offer letter, you represent and warrant to the Company that you are under no contractual commitments inconsistent with your obligations to the Company.

[Signature Page Follows]

Scott, let me indicate how pleased I am to extend this offer, and how much I look forward to working with you. Please indicate your acceptance by signing and returning the enclosed copy of this letter, no later than September 17, 2007.

Sincerely,

/s/ Alexander Rives

Alexander Rives
President
Fate Therapeutics, Inc.

The foregoing terms and conditions are hereby accepted:

Signed: /s/ Scott Wolchko

Print Name: Scott Wolchko

Date: September 17, 2007

Indicated Start Date: September 17, 2007

EXHIBIT 10.5

November 11, 2008

Scott Wolchko

Re: Amendment to Employment Offer Letter dated September 17, 2007

Dear Scott:

This letter agreement amends that certain employment offer letter, dated September 17, 2007 (the "Offer Letter"), between you and Fate Therapeutics, Inc. (the "Company"). Capitalized terms used herein but not defined shall have the meanings assigned to them in the Offer Letter.

1. **Severance.** Section 5 of the Offer Letter is hereby amended and restated in its entirety to read as set forth below:

"If within twelve (12) months of a Change of Control (as defined below), your employment is terminated at any time (i) involuntarily without Cause (as defined below) or (ii) for Good Reason (as defined below), subject to the execution by you of a customary release, (A) you shall receive a cash severance payment equal to six months of your then-current annual base salary (the "Severance Payment"), and (B) you shall be reimbursed for six months of COBRA benefits. The Severance Payment shall be paid out in substantially equal installments over six months in accordance with the Company's payroll practice, in arrears beginning on the first payroll date that is at least 30 days after the Date of Termination (as defined below); provided that you have executed, returned to the Company and have not revoked within the applicable revocation period a customary release of claims against the Company in a form reasonably acceptable to the Company. Solely for purposes of Section 409A of the Internal Revenue Code of 1986, as amended (the "Code"), each installment is considered a separate payment."

2. **Amendments to Definition of Good Reason**. The definition of "Good Reason" contained in Section 7 of the Offer Letter is hereby amended and restated to read as set forth below:

"Good Reason" shall mean that you have complied with the "Good Reason Process" (as defined below) following the occurrence of any of the following events: (i) a reduction by fifteen (15) or greater percent by the Company or any successor thereof of your then-current base salary (provided however, that in the event that the base salary of all senior management are similarly reduced, such material reduction will not constitute Good Reason); (ii) a material reduction by the Company or any successor thereof in your kind or level of employee benefits with the result that your

overall benefits package is significantly reduced (provided however, that in the event the benefits of all senior management are similarly reduced, such material reduction will not constitute Good Reason); or (iii) your relocation to a facility or a location more than fifty (50) miles from the Company's headquarters as of the date of this letter. Notwithstanding the above, none of the following shall be considered Good Reason: (x) the mere occurrence of a Change of Control; (y) any change in the identity of the surviving corporation in the event of a Change of Control; or (z) any change in the status of the surviving corporation after a Change of Control as a private or public company.

3. **Additional Definitions**. The Offer Letter is hereby amended to include the following additional defined terms:

"Date of Termination" shall mean (i) if the Company terminates your employment without Cause, 30 days after the date on which the Company delivers to you notice of such termination and (ii) if you terminate your employment for Good Reason, the date on which you deliver the notice of termination described in clause (v) of the definition of "Good Reason Process" below.

"Good Reason Process" shall mean that (i) you reasonably determine in good faith that a "Good Reason" condition has occurred; (ii) you notify the Company in writing of the occurrence of the Good Reason condition within 60 days of the occurrence of such condition; (iii) you cooperate in good faith with the Company's efforts, for a period not less than 30 days following such notice (the "Cure Period"), to remedy the condition; (iv) notwithstanding such efforts, the Good Reason condition continues to exist; and (v) you deliver to the Company notice of termination of your employment within 60 days after the end of the Cure Period. If the Company cures the Good Reason condition during the Cure Period, Good Reason shall be deemed not to have occurred.

4. **Section 409A**.

4.1 Anything in the Offer Letter (as amended hereby) to the contrary notwithstanding, if at the time of your separation from service within the meaning of Section 409A of the Code, the Company determines that you are a "specified employee" within the meaning of Section 409A(a)(2)(B)(i) of the Code, then to the extent any payment or benefit that you become entitled to hereunder on account of your separation from service would be considered deferred compensation subject to the 20 percent additional tax imposed pursuant to Section 409A(a) of the Code as a result of the application of Section 409A(a)(2)(B)(i) of the Code, such payment shall not be payable and such benefit shall not be provided until the date that is the earlier of (A) six months and one day after your separation from service, or (B) your death. If any such delayed cash

payment is otherwise payable on an installment basis, the first payment shall include a catch-up payment covering amounts that would otherwise have been paid during the six-month period but for the application of this provision, and the balance of the installments shall be payable in accordance with their original schedule. The determination of whether and when a separation from service has occurred shall be made in accordance with the presumptions set forth in Treasury Regulation Section 1.409A-1(h).

4.2 The parties intend that the Offer Letter (as amended hereby) be administered in accordance with Section 409A of the Code. To the extent that any provision of the Offer Letter (as amended hereby) is ambiguous as to its compliance with Section 409A of the Code, the provision shall be read in such a manner so that all payments hereunder comply with Section 409A of the Code. The parties agree that the Offer Letter (as amended hereby) may be amended as reasonably requested by either party, and as may be necessary to fully comply with Section 409A of the Code and all related rules and regulations in order to preserve the payments and benefits provided hereunder without additional cost to either party. The Company makes no representation or warranty and shall have no liability to you or any other person if any provisions of the Offer Letter (as amended hereby) are determined to constitute deferred compensation subject to Section 409A of the Code but do not satisfy an exemption from, or the conditions of, such Section.

5. **No Other Amendment**. Except as expressly amended hereby, the terms and conditions of the Offer Letter shall remain unchanged and in full force and effect.

Sincerely,

/s/ Paul Grayson

Paul Grayson
President and Chief Executive Officer
Fate Therapeutics, Inc.

The foregoing terms and conditions are hereby accepted:

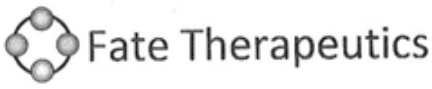
Signed: /s/ Scott Wolchko

Print Name: Scott Wolchko

Date: 2008 Nov 11

EXHIBIT 10.6

10931 N Torrey Pines Rd, Suite 107
La Jolla, CA 92037
(858) 875-1800



March 23, 2009

Dr. Pratik S. Multani

Dear Pratik:

Fate Therapeutics, Inc. ("Fate" or the "Company") is pleased to offer you, Dr. Pratik S. Multani (the "Employee"), a full-time exempt position as VP, Clinical Development reporting to Paul Grayson, the Company's President & CEO. This position has an effective start date of April 20, 2009 or such other similar date as mutually agreed to by the parties.

1. **Base Salary; Benefits; Bonus**. In consideration of your employment, you will be paid an annual base salary of $285,000, less applicable withholding, to be paid in accordance with Fate's standard payroll policies. In addition, you will be eligible to participate in an employee health benefits program, a bonus plan and a vacation plan similar to those provided to other employees in comparable positions; provided that Company and Employee agree that Employee's annual target bonus will be 30% of annual base salary, pro-rated for the number of months actually worked, subject to the achievement of reasonably attainable performance goals and milestones to be set in good faith between the Company's President & CEO and Employee.

2. **Equity Grant**. Subject to approval by our Board of Directors, you will be granted an option to purchase 168,750 shares of the Company's Common Stock at the exercise price determined by the Board of Directors (the "Option"). Subject to acceleration in connection with a Change of Control as described below, the Option will vest over a period of four years, with 42,188 shares (representing 25% of the total shares of Common Stock underlying the Option) vesting one year after the start date of your employment, and the remaining 126,562 shares vesting in 36 equal monthly installments thereafter, with your continued employment with the Company required on each vesting date. The Option will be immediately exercisable upon grant, but the Company will retain a right of repurchase with respect to any shares that remain unvested upon the termination of your employment with the Company. The Option will be granted in accordance with the terms of the Company's 2007 Equity Incentive Plan (the "Plan) and standard form of stock option agreement, which you will be required to sign as a condition to receiving the Option.

   In the event of a Change of Control (as defined in the Plan), the vesting of the Option will immediately accelerate and the Company's right of repurchase will lapse with respect 50% of the then remaining unvested shares underlying the Option. In addition, if within twelve (12) months after a Change of Control, your employment is terminated at any time (i) involuntarily without Cause (as defined below) or (ii) for Good Reason (as defined below), the vesting of the Option will immediately accelerate and the Company's right of repurchase will lapse with respect to all shares underlying the Option that remain unvested as of the date of such termination.

3. **Cash Severance**. If at any time within twelve (12) months following a Change of Control, your employment is terminated (i) involuntarily without Cause or (ii) for Good Reason, subject to the execution by you of a customary release, (A) you shall receive a cash severance payment equal to six months of your then-current annual base salary (the "Severance Payment"), and (B) you shall be reimbursed for six months of COBRA benefits. The Severance Payment shall be paid out in substantially equal installments over six months in accordance with the Company's payroll practice, in arrears beginning on the first payroll date that is at least 30 days after the Date of Termination (as defined below); provided that you have executed, returned to the Company and have not revoked within the applicable revocation period a customary release of claims against the Company in a form reasonably acceptable to the Company. Solely for purposes Section 409A of the Internal Revenue Code of 1986, as amended (the "Code"), each installment is considered a separate payment.

4. **Definitions**.

"Cause" shall be defined as the occurrence of any of the following, as determined by the Board: (i) conviction of any felony or any crime involving fraud, dishonesty or moral turpitude under the laws of the United States or any state thereof; (ii) attempted commission of, or participation in, a fraud against the Company; (iii) material violation of any contract or agreement between you and the Company or any statutory duty owed to the Company, unless such violation is cured to the reasonable satisfaction of the Company within ten (10) days after the delivery to you of written notice specifying such violation; or (iv) repeated or habitual drug or alcohol use that materially and adversely interferes with the performance of your services to the Company.

"Date of Termination" shall mean (i) if the Company terminates your employment without Cause, 30 days after the date on which the Company delivers to you notice of such termination and (ii) if you terminate your employment for Good Reason, the date on which you deliver the notice of termination described in clause (v) of the definition of "Good Reason Process" below.

"Good Reason" shall mean that you have complied with the "Good Reason Process" (as defined below) following the occurrence of any of the following events; (i) a reduction by fifteen (15) or greater percent by the Company or any successor thereof of your then-current base salary (provided however, that in the event that the base salary of all senior management are similarly reduced, such material reduction will not constitute Good Reason); (ii) a material reduction by the Company or any successor thereof in your kind or level of employee benefits with the result that your overall benefits package is significantly reduced (provided however, that in the event the benefits of all senior management are similarly reduced, such material reduction will not Constitute Good Reason); or (iii) your relocation to a facility or a location more than fifty (50) miles from the Company's headquarters as of the date of this letter. Notwithstanding the above, none of the following shall be considered Good Reason: (x) the mere occurrence of a Change of Control; (y) any change in the identity of the surviving corporation in the event of a Change of Control; or (z) any change in the status of the surviving corporation after a Change of Control as a private or public company.

"Good Reason Process" shall mean that (i) you reasonably determine in good faith that a "Good Reason" condition has occurred; (ii) you notify the Company in writing of the occurrence of the Good Reason condition within 60 days of the occurrence of such condition; (iii) you cooperate in good faith with the Company's efforts, for a period not less than 30 days following such notice (the "Cure Period"), to remedy the condition; (iv) notwithstanding such efforts, the Good Reason condition continues to exist; and (v) you deliver to the Company notice of termination of your employment within 60 days after the end of the Cure Period. If the Company cures the Good Reason condition during the Cure Period, Good Reason shall be deemed not to have occurred.

5. **Proprietary Information and Inventions Agreement**. As a condition of your employment, you will be required to execute and deliver the Company's standard form Employee Proprietary Information and Inventions Agreement attached hereto (the "Agreement"). In part, this Agreement requires that employees comply with the Company's requirements to protect its proprietary and confidential information at all times. Additionally, under federal immigration laws, the Company is required to verify each new employee's identity and legal authority to work in the United States. Accordingly, please be prepared to furnish appropriate documents satisfying those requirements as this offer of employment is conditioned on submission of satisfactory documentation and its verification.

6. **At-Will Employment; Dispute Resolution**. Employees have the right to terminate their employment at any time, with or without cause or notice, and Fate reserves for itself an equal right with respect to your employment, where this type of relationship is called "at-will" employment. We both agree that any dispute arising with respect to your employment, the termination of that employment, or a breach of any covenant of good faith and/or fair dealing related to your employment shall be conclusively settled, to the fullest extent permitted by law, by final, binding and confidential arbitration in San Diego, CA conducted before a single arbitrator by Judicial Arbitration and Mediation Services, Inc. ("JAMS") or its successor, under the then-applicable JAMS rules.

7. **Section 409A**. Anything in this employment offer letter agreement to the contrary notwithstanding, if at the time of your separation from service within the meaning of Section 409A of the Code, the Company determines that you are a "specified employee" within the meaning of Section 409A(a)(2)(B)(i) of the Code, then to the extent any payment or benefit that you become entitled to hereunder on account of your separation from service would be considered deferred compensation subject to the 20 percent additional tax imposed pursuant to Section 409A(a) of the Code as a result of the application of Section 409A(a)(2)(B)(i) of the Code, such payment shall not be payable and such benefit shall not be provided until the date that is the earlier of (A) six months and one day after your separation from service, or (B) your death. If any such delayed cash payment is otherwise payable on an installment basis, the first payment shall include a catch-up payment covering amounts that would otherwise have been paid during the six-month period but for the application of this provision, and the balance of the installments shall be payable in accordance with their original schedule. The determination of whether and when a separation from service has occurred shall be made in accordance with the presumptions set forth in Treasury Regulation Section 1.409A-1(h).

The parties intend that this agreement be administered in accordance with Section 409A of the Code. To the extent that any provision of this agreement is ambiguous as to its

compliance with Section 409A of the Code, the provision shall be read in such a manner so that all payments hereunder comply with Section 409A of the Code. The parties agree that this agreement may be amended as reasonably requested by either party, and as may be necessary to fully comply with Section 409A of the Code and all related rules and regulations in order to preserve the payments and benefits provided hereunder without additional cost to either party, The Company makes no representation or warranty and shall have no liability to you or any other person if any provisions of this agreement are determined to constitute deferred compensation subject to Section 409A of the Code but do not satisfy an exemption from, or the conditions of, such Section.

8. **Entire Agreement; Amendment**. This letter and the Employee Proprietary Information and Inventions Agreement attached hereto contain the entire terms and conditions with respect to your employment, and they supersede all prior communications, negotiations, representations and/or agreements between you and Fate. The terms and conditions of this offer may only be changed by written agreement by a duly authorized representative of Fate, although Fate may, from time to time, in its sole discretion, adjust the salary, benefits and/or other forms of compensation paid to you in connection with your employment.

If this offer is acceptable to you, kindly indicate your consent to its terms and conditions by signing and returning a copy of this letter and a completed Employee Proprietary Information and Inventions Agreement attached hereto to me by the close of business on March 27, 2009, it being understood that this offer will expire if not accepted on or before such date (although that expiration date may be extended at the discretion of Fate). Upon your signature below, this letter will become our binding agreement with respect to your employment, containing all terms and conditions as to the specifics thereto.

We hope that you and Fate will find mutual satisfaction with your employment. All of us at Fate are very excited about you joining our team and look forward to a beneficial and fruitful relationship.

Very truly yours,

/s/ Paul Grayson

Paul Grayson
President & Chief Executive Officer

I agree to and accept employment with Fate Therapeutics, Inc. on the terms and conditions set forth in this letter, including the Employee Proprietary Information and Inventions Agreement attached hereto as Appendix A:

/s/ Pratik S. Multani	3/27/09
Dr. Pratik S. Multani	Date

EXHIBIT 10.7

CONSULTING AGREEMENT

This Consulting Agreement (this "Agreement") is made and entered into as of December 31, 2012 by and between Fate Therapeutics, Inc., a Delaware corporation (the "Company"), and John D. Mendlein ("Consultant").

WHEREAS, the Company and Consultant previously entered into an Employment Agreement, dated April 29, 2008 (the "Original Agreement");

WHEREAS, concurrently herewith, the Company and Consultant are entering into that certain Amended and Restated Restricted Stock Purchase Agreement (the "Restricted Stock Purchase Agreement"); and

WHEREAS, the Company and Consultant have agreed to terminate the Original Agreement and, in lieu thereof, to enter into this Agreement on the terms set forth below.

NOW, THEREFORE, in consideration of the mutual covenants and agreements herein contained and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties agree as follows:

1. Term. The term of Consultant's service relationship under this Agreement (hereafter referred to as the "Term") commenced on November 1, 2012 and will continue until terminated in accordance with Section 4. The parties agree that Consultant will be treated as an independent contractor, and not an employee, of the Company during the Term. For the avoidance of doubt, Consultant's service relationship under this Agreement will not be for any fixed term, and will be terminable by the Company or Consultant at any time, with or without cause or notice, but subject in all events to the consequences set forth in this Agreement and the Restricted Stock Purchase Agreement.

2. Title and Duties. During the Term, Consultant will serve as the Vice Chairman of the Board of Directors of the Company (the "Board"). For clarity, after the Term, Consultant may continue to serve as a member of the Board (and optionally as the Vice Chairman of the Board as well), as Consultant and the Company may mutually agree. Consultant agrees to devote an average of twelve (12) hours per month during normal working hours to the performance of his duties as defined by, and in accordance with the supervision and direction of the Company's Chief Executive Officer. It is expected that such duties would include the leadership and performance of projects of strategic importance, including but not limited to projects directed at specific business development and/or product development objectives for the Company. Notwithstanding the foregoing, Consultant may be an employee or consultant to one or more other entities, may serve on other boards of directors, and may engage in religious, charitable or other community activities as long as such services and activities (all such activities, "Consultant's Other Work") do not materially interfere with Consultant's performance of his duties to the Company and are not in violation of Section 7(e). The Company's headquarters will initially be located in San Diego county, California.

3. Compensation. As compensation for services performed by Consultant during the Term, the Company will pay Consultant as follows:

(a) Consulting Fee. During the Term, Consultant will be paid an annual consulting fee at the annualized rate of twenty thousand dollars ($20,000), less applicable tax deductions and withholdings. The consulting fee in effect at any given time is referred to herein as the "Consulting Fee." The Consulting Fee will be payable in periodic installments in accordance with the Company's usual practice for its senior executives.

(b) Indemnification and Directors' and Officers' Insurance. During the Term and for the period of time following termination of this Agreement for any reason during which time Consultant could be subject to any claim based on his position in the Company, Consultant will receive the maximum indemnification protection from the Company as permitted by the Company's by-laws and will receive directors' and officers' insurance coverage equivalent to that which is provided to any other director or officer of the Company (including mandatory advancement of expenses).

(c) Business Expenses. The Company will pay or reimburse Consultant for all reasonable business expenses incurred or paid by Consultant in the performance of his duties and responsibilities hereunder, subject to reasonable substantiation and documentation as may be specified by the Company from time to time. The Company acknowledges that due to Consultant's medical condition, the foregoing reasonable business expenses will include business or first class airfare for all flights over 60 minutes.

4. Termination. Either the Company or Consultant may terminate this Agreement for any reason or no reason by delivery of written notice of termination to the other party hereto at least thirty (30) days prior to the effective date of termination (the "Date of Termination"). Upon termination of this Agreement for any reason (or for no reason), and if so requested, Consultant agrees to deliver his resignation as a director or Vice Chairman of the Board (or both) upon the request of a majority of the members of the Board, excluding Consultant (the "Other Directors").

5. Compensation Upon Termination; Other Effects of Termination.

(a) In the event of the termination of this Agreement, for whatever reason, the Company will pay Consultant within ten days after the Date of Termination (i) all accrued and unpaid Consulting Fee through the Date of Termination and (ii) any unpaid reimbursement for any expenses hereunder (collectively, the "Accrued Benefit"); provided, however, that if applicable law requires earlier payment, any such amounts that are required to be paid earlier will be paid in accordance with applicable law. If this Agreement is terminated by reason of Consultant's death, the Company will pay to such person as Consultant will designate in a notice filed with the Company or, if no such person is designated, to Consultant's estate, the Accrued Benefit. In addition to the foregoing, upon termination of this Agreement under certain circumstances, Consultant will be entitled to certain rights with respect to his equity ownership in the Company, as set forth in the Restricted Stock Purchase Agreement and any other agreements pursuant to which Consultant has received, or is entitled to receive from the Company equity securities or rights to acquire equity securities of the Company, which the Company hereby acknowledges are in addition to, and not in lieu of, the compensation upon termination set forth herein.

(b) No provision of this Agreement will be deemed to waive any rights of Consultant under the Family and Medical Leave Act of 1993, 29 U.S.C. §2601 et seq. and the Americans with Disabilities Act, 42 U.S.C. §12101 et seq. and any other applicable federal, state or local anti-discrimination laws.

(c) Upon any termination of this Agreement, (i) Consultant will retain ownership of and may remove from the Company all personal property owned by him, and (ii) nothing contained in Section 5(a) will be construed so as to affect Consultant's rights or the Company's obligations relating to agreements or benefits that are unrelated to termination of this Agreement. Solely for purposes of Section 409A of the Internal Revenue Code of 1986, as amended (the "Code"), each payment by the Company to Consultant post-termination is considered a separate payment.

6. 409A.

(a) Anything in this Agreement to the contrary notwithstanding, if at the time of Consultant's separation from service within the meaning of Section 409A of the Code, the Company determines that Consultant is a "specified employee" within the meaning of Section 409A(a)(2)(B)(i) of the Code, then to the extent any payment or benefit that Consultant becomes entitled to under this Agreement would be considered deferred compensation subject to the twenty percent (20%) additional tax imposed pursuant to Section 409A(a) of the Code as a result of the application of Section 409A(a)(2)(B)(i) of the Code, such payment will not be payable and such benefit will not be provided until the date that is the earlier of (A) six months and one day after Consultant's separation from service, or (B) Consultant's death. If any such delayed cash payment is otherwise payable on an installment basis, the first payment will include a catch-up payment covering amounts that would otherwise have been paid during the six-month period but for the application of this provision, and the balance of the installments will be payable in accordance with their original schedule. Any such delayed cash payment will earn interest at an annual rate equal to the applicable federal short-term rate published by the Internal Revenue Service for the month in which the date of separation from service occurs, from such date of separation from service until the payment. The determination of whether and when a separation from service has occurred will be made in accordance with the presumptions set forth in Treasury Regulation Section 1.409A-1(h).

(b) The parties intend that this Agreement will be administered in accordance with Section 409A of the Code. To the extent that any provision of this Agreement is ambiguous as to its compliance with Section 409A of the Code, the provision will be read in such a manner so that all payments hereunder comply with Section 409A of the Code. The parties agree that this Agreement may be amended, as reasonably requested by either party, and as may be necessary to fully comply with Section 409A of the Code and all related rules and regulations in order to preserve the payments and benefits provided hereunder without additional cost to either party.

7. Confidential Information and Noncompetition.

(a) Confidential Information. For purposes of this Agreement, "Confidential Information" means all information of the Company disclosed or made available to Consultant. Confidential Information includes, without limitation, financial information, reports, and forecasts; inventions, improvements and other intellectual property; trade secrets; know-how; designs, processes or formulae; software; market or sales information or plans; customer lists; and business plans, prospects and opportunities (such as possible acquisitions or dispositions of businesses or facilities) which have been discussed or considered by the management of the Company. Confidential Information includes information developed by Consultant in the course of Consultant's employment by, or other service relationship with, the Company, as well as other information to which Consultant may have access in connection with Consultant's employment or other service relationship. Confidential Information also includes the confidential information of others with which the Company has a business relationship. Notwithstanding the foregoing, "Confidential Information" will not include any information that is generally known in the industry or that becomes known in the industry through sources other than Consultant, or information received by Consultant from a third party not known to him to be under an obligation of confidentiality to the Company. Notwithstanding the foregoing, Consultant may disclose Confidential Information (A) at the express direction of any authorized government entity; (B) pursuant to a subpoena or other court process; (C) as otherwise required by law or the rules, regulations or orders of any applicable regulatory body; or (D) as otherwise necessary, in the opinion of counsel for Consultant, to be disclosed by Consultant in connection with the prosecution of any legal action or proceeding initiated by Consultant against Company or any of its affiliates or the defense of any legal action or proceeding initiated against Consultant in his capacity as an employee or director of the Company or of any of its affiliates.

(b) Confidentiality. Consultant understands and agrees that Consultant's service relationship creates a relationship of confidence and trust between Consultant and the Company with respect to all Confidential Information. At all times, both during Consultant's service relationship with the Company and after its termination, Consultant will keep in confidence all Confidential Information, and will not use or disclose any such Confidential Information without the written consent of the Company, except as may be reasonably necessary or useful in the routine performance of Consultant's duties to the Company.

(c) Documents, Records, etc. All documents, records, data, apparatus, equipment and other physical property, whether or not pertaining to Confidential Information, which are furnished to Consultant by the Company or are produced by Consultant in connection with Consultant's service relationship with the Company will be and remain the sole property of the Company. Consultant will return to the Company all such materials and property as and when requested by the Company. In any event, Consultant will return all such materials and property immediately upon termination of this Agreement for any reason, other than one copy for Consultant's records.

(d) Inventions and Innovations. Consultant agrees to communicate to the Company, promptly and fully, and to assign to the Company, all inventions, trade secrets, and technical or business innovations, developed or conceived solely by Consultant, or jointly with others, while employed by, or in a service relationship with, the Company, which were

developed on the time of the Company using Confidential Information. Consultant further agrees to execute all necessary papers and otherwise to assist the Company, at the Company's sole expense, to obtain patents or other legal protection as the Company deems fit, and to assist in perfecting in the Company all rights granted to it hereunder. Both the Company and Consultant intend that all original works of authorship created by Consultant while working in the employ of, or as a consultant to, the Company will be works for hire within the meaning of applicable copyright laws and will belong to the Company. Consultant understands that, notwithstanding anything to the contrary herein, this Agreement will not require assignment to the Company of any invention which qualifies fully under the provisions of California Labor Code Section 2870, a copy of which is attached hereto as Exhibit A. In addition, at the sole discretion of the Board, the Company will determine whether such additional compensation as is customary for such inventions will be provided to Consultant with respect to inventions under this section (d).

(e) Noncompetition. During the Term, Consultant will not, whether as owner, partner, shareholder, consultant or employee, engage or invest in any Competing Business (as hereinafter defined). Consultant understands that the restrictions set forth in this Section 7(e) are intended to protect the Company's interest in its Confidential Information, and agrees that such restrictions are reasonable and appropriate for this purpose. For purposes of this Agreement, the term "Competing Business" will mean a business directly competitive with any ongoing program or substantially planned business activity which the Company or any of its affiliates conducts during the employment or other service relationship of Consultant. Notwithstanding the foregoing, Consultant may own up to one percent (1%) of the outstanding stock of a publicly held corporation which constitutes or is affiliated with a Competing Business. For the avoidance of doubt, the term "Competing Business" does not include a business or any entity primarily focused on biologics, small molecule or nucleic acid based therapies and that does not have a primary focus on stem cells, regenerative medicine or reprogamming.

(f) Third-Party Agreements and Rights. Consultant hereby confirms that Consultant is not bound by the terms of any agreement with any previous company or other party which restricts in any way Consultant's use or disclosure of information or Consultant's engagement in any business. Consultant represents to the Company that Consultant's execution of this Agreement, Consultant's service relationship with the Company and the performance of Consultant's proposed duties for the Company will not violate any obligations Consultant may have to any such previous company or other party.

(g) Injunction. Consultant agrees that it would be difficult to measure any damages caused to the Company which might result from any breach by Consultant of the promises set forth in this Section 7, and that in any event money damages would be an inadequate remedy for any such breach. Accordingly, Consultant agrees that if Consultant breaches, or proposes to breach, any portion of this Agreement, the Company will be entitled, in addition to all other remedies that it may have, to an injunction or other appropriate equitable relief to restrain any such breach without showing or proving any actual damage to the Company.

(h) Consultant's Other Work. Notwithstanding the foregoing, the Company understands that Consultant will engage in Consultant's Other Work. As part of Consultant's

Other Work, the Company acknowledges and agrees that Consultant will among other things be obligated to keep third parties information confidential, to assign inventions to third parties, and to agree to non-compete provisions with third parties. Consultant will endeavor to keep his work for the Company separate and apart from Consultant's Other Work. In particular, with respect to Sections 7(b) and 7(d), if Consultant believes that he has developed or conceived any inventions or technical or business innovations that could be viewed as being assignable to the Company and one or more other companies, the Company and Consultant will discuss how Consultant may disclose such invention or innovation to the Company without breaching his obligations to such other companies and the parties will endeavor to resolve rights with respect thereto by working with such other companies. Consultant will endeavor to include a similar provision in his agreements with such other companies.

8. Section 280G.

(a) Post-IPO. Upon the Company's consummation of an initial public offering of the Company's common stock pursuant to an effective registration statement under the Securities Act of 1933, as amended (an "IPO"), the Company agrees to enter into an agreement with Consultant regarding a Change of Control (as defined below) at Consultant's request. This agreement will provide that the Company will make a "gross-up" payment to Consultant such that, in the event certain excise taxes and penalties are imposed on Consultant as a result of the provisions of Sections 280G and/or 4999 of the Code, Consultant's net after-tax payments and benefits will be equal to what Consultant would have received absent the penalty tax. Such Change of Control agreement will not supersede any of the material terms of this Agreement without the Consultant's written consent.

(b) Pre-IPO. In the event that the Company undergoes a Change of Control prior to an IPO, the Company agrees, upon Consultant's request, that it will seek the requisite approval by its stockholders, and encourage that they grant such approval, of the payments proposed to be made to Consultant in connection with such Change of Control in order to prevent having the payments characterized as "parachute payments" under Sections 280G and 4999 of the Code. In connection with the obtaining of such approval, Consultant agrees to undertake any such waivers that may be required of Consultant in order for the Company to validly seek the approval of its stockholders. In addition, in the event that Consultant's employment ends within 12 months after the completion of any Change of Control, the Company agrees to enter into a consulting or advisory relationship with Consultant following the completion of such Change of Control such that any unvested stock options or restricted stock that could have accelerated as a result of such Change of Control under the Restricted Stock Purchase Agreement or otherwise absent Consultant's waiver of any such acceleration will continue to vest in accordance with the terms of any applicable stock option or restricted stock agreements. The Company agrees to maintain such relationship with Consultant in good faith, provided Consultant continues to provide bona fide consulting or advisory services to the Company, until such time as all options or restricted shares which were unvested as of the consummation of such Change of Control become fully vested. For the avoidance of doubt, if the provision of services as a consultant would result in the Consultant's not having had a "separation from service" under Section 409A of the Code, any payments that would have been due upon a termination of employment will be deferred until such separation from service will have occurred.

(c) Definition of "Change of Control". For purposes of this Agreement, "Change of Control" will mean (i) any "person," as such term is used in Sections 13(d) and 14(d) of the Securities Exchange Act of 1934, as amended (the "Act") (other than the Company or any of its subsidiaries), together with all "affiliates" and "associates" (as such terms are defined in Rule 12b-2 under the Act) of such person, will become the "beneficial owner" (as such term is defined in Rule 13d-3 under the Act), directly or indirectly, of securities of the Company representing fifty percent (50%) or more of the combined voting power of the Company's then outstanding securities having the right to vote in an election of the Board ("Voting Securities") (in such case other than as a result of an acquisition of securities directly from the Company); or (ii) the consummation of (A) any consolidation or merger of the Company where the stockholders of the Company, immediately prior to the consolidation or merger, would not, immediately after the consolidation or merger, beneficially own (as such term is defined in Rule 13d-3 under the Act), directly or indirectly, shares representing in the aggregate more than fifty percent (50%) of the voting shares of the Company issuing cash or securities in the consolidation or merger (or of its ultimate parent corporation, if any), or (B) any sale or other transfer (in one transaction or a series of transactions contemplated or arranged by any party as a single plan) of all or substantially all of the assets of the Company; provided that "Change of Control" will not include any transaction effected by the Company solely (i) for equity financing purposes with venture capital or other institutional investors before the IPO, or (ii) to reincorporate the Company into a new jurisdiction of formation.

9. Survival. Provisions of this Agreement will survive any termination if so provided herein or if necessary or desirable to accomplish the purposes of other surviving provisions. The Company will continue to indemnify Consultant as an officer and/or director of the the Company to the full extent permitted under law for Consultant's service prior to termination.

10. Taxes. The Company will undertake to make deductions, withholdings and tax reports with respect to payments and benefits under this Agreement to the extent that it reasonably and in good faith determines that it is required to make such deductions, withholdings and tax reports. Payments under this Agreement will be in amounts net of any such deductions or withholdings.

11. Arbitration. To ensure rapid and economical resolution of any disputes that may arise in connection with this Agreement, Consultant and the Company agree that any and all disputes, claims, or controversies of any nature whatsoever arising out of, or relating to, this agreement, or its interpretation, enforcement, breach, performance or execution, Consultant's service relationship with the Company, or the termination of such service relationship, will be resolved, to the fullest extent permitted by law, by final, binding and confidential arbitration in San Diego, CA conducted before a single arbitrator by Judicial Arbitration and Mediation Services, Inc. ("JAMS") or its successor, under the then-applicable JAMS rules. By agreeing to this arbitration procedure, both Consultant and the Company waive the right to resolve any such dispute, claim or demand through a trial by jury or judge or by administrative proceeding. Consultant will have the right to be represented by legal counsel at any arbitration proceeding. The arbitrator will: (a) have the authority to compel adequate discovery for the resolution of the dispute and to award such relief as would otherwise be available under applicable law in a court proceeding; and (b) issue a written statement signed by the arbitrator regarding the disposition of

each claim and the relief, if any, awarded as to each claim, the reasons for the award, and the arbitrator's essential findings and conclusions on which the award is based. The arbitrator, and not a court, will be authorized to determine whether the provisions of this paragraph apply to a dispute, controversy, or claim sought to be resolved in accordance with these arbitration procedures. The Company will pay all JAMS' arbitration fees. Nothing in this Agreement is intended to prevent either Consultant or the Company from obtaining injunctive relief in court if necessary to prevent irreparable harm pending the conclusion of any arbitration.

12. Integration. This Agreement along with the Restricted Stock Purchase Agreement and any other agreements pursuant to which Consultant has received, or is entitled to receive from the Company equity securities or rights to acquire equity securities of the Company constitute the entire agreement between the parties with respect to the subject matter hereof and supersedes all prior agreements between the parties with respect to any related subject matter, including without limitation the Original Agreement, which is hereby terminated upon the execution and delivery of this Agreement; provided, that all rights and obligations accrued under the Original Agreement will continue under the terms thereof. For the avoidance of doubt, this Agreement will not supersede or replace any currently effective director or officer indemnification agreement between the Company and Consultant, which agreement(s) will remain in full force and effect in accordance with the terms thereof.

13. Assignment; Successors and Assigns, etc. Neither the Company nor Consultant may make any assignment of this Agreement or any interest herein, by operation of law or otherwise, without the prior written consent of the other party; provided that the Company may assign its rights under this Agreement in full (and not in part) without the consent of Consultant in the event that the Company will effect a reorganization, consolidate with or merge into any other corporation, partnership, organization or other entity, or transfer all or substantially all of its properties or assets to any other corporation, partnership, organization or other entity, provided the assignee in any such assignment fully assumes all obligations of the Company hereunder.

14. Successors. This Agreement will be binding on and inure to the benefit of Consultant, Consultant's heirs, executors, administrators and other legal representatives and will be binding on and inure to the benefit of the Company and its respective successors and assigns. If Consultant should die while any amounts would still be payable to him hereunder if he had continued to live, all such amounts, unless otherwise provided herein, will be paid in accordance with the terms of this Agreement to his designee or, if there be no such designee, to his estate.

15. Enforceability. If any portion or provision of this Agreement will to any extent be declared illegal or unenforceable by a court of competent jurisdiction, then the remainder of this Agreement, or the application of such portion or provision in circumstances other than those as to which it is so declared illegal or unenforceable, will not be affected thereby, and each portion and provision of this Agreement will be valid and enforceable to the fullest extent permitted by law.

16. Waiver. No waiver of any provision hereof will be effective unless made in writing and signed by the waiving party. The failure of any party to require the performance of any term or obligation of this Agreement, or the waiver by any party of any breach of this Agreement, will not prevent any subsequent enforcement of such term or obligation or be deemed a waiver of any subsequent breach.

17. Notices. Any notices, requests, demands and other communications provided for by this Agreement will be sufficient if in writing and delivered in person or sent by a nationally recognized overnight courier service or by registered or certified mail, postage prepaid, return receipt requested, to Consultant at the last address Consultant has filed in writing with the Company at its main offices, attention of the Chief Executive Officer, and will be effective on the date of delivery in person or by courier or three days after the date mailed.

18. Amendment. This Agreement may be amended or modified only by a written instrument signed by Consultant and the Company (where such amendment has been approved by a majority of the Other Directors).

19. Governing Law. This contract will be construed under and be governed in all respects by the laws of The State of California, without giving effect to the conflict of laws principles. With respect to any disputes concerning federal law, such disputes will be determined in accordance with the law as it would be interpreted and applied by the appropriate United States Court of Appeals.

20. Counterparts. This Agreement may be executed in two or more counterparts, each of which will be deemed an original, but all of which together will constitute one and the same instrument.

[*remainder of this page intentionally left blank*]

IN WITNESS WHEREOF, this Agreement has been executed by the Company, by its duly authorized representative, and by Consultant, as of the date first above written.

FATE THERAPEUTICS, INC.	CONSULTANT
By: /s/ Christian Weyer	/s/ John D. Mendlein
Name: Christian Weyer	John D. Mendlein
Title: President and Chief Executive Officer	

EXHIBIT 10.8

Fate Therapeutics, Inc.
3535 General Atomics Court, Suite 200
San Diego, CA 92121

May 24, 2012

Mark Enyedy

Re: Board of Directors of Fate Therapeutics, Inc.

Dear Mark:

Fate Therapeutics, Inc. (the "Company") is pleased to confirm its offer to you to serve as a member of the Board of Directors of the Company (the "Board"). Your effective date of appointment as a director of the Company will be the date the Board approves your election to the Board (the "Start Date").

I will ask the Board to grant you a stock option to purchase 200,000 shares of common stock, par value $0.001 per share, of the Company (the "Option"). The Option will vest over a 4-year period on a monthly basis, with a one-year cliff for the first 25% of the shares underlying the Option, starting from the Start Date, subject to certain requirements. In all respects, the Option will be governed by the Company's 2007 Equity Incentive Plan and a Non-Qualified Stock Option Agreement to be entered into between you and the Company.

It is understood that you will serve at the pleasure of the Company and that either you or the Company may terminate your directorship at any time and for any reason without prior notice and without additional compensation to you. The Company will reimburse you for reasonable and necessary travel expenses incurred by you in furtherance of the Company's business pursuant to Company policy. You will be solely responsible for payment of all governmental charges and taxes arising from your service to the Company as a director. In making this offer, the Company understands, and in accepting it you represent that you are not under any obligation to any employer or any person, firm, or corporation which would prevent, limit, or impair in any way the performance by you of your duties as a director of the Company.

Please indicate your acceptance of this offer to serve as a director of the Company by signing and dating the enclosed copy of this letter and returning it to the Company at the address above in the enclosed envelope.

We look forward to your joining the Board.

Very truly yours,

FATE THERAPEUTICS, INC.

By: /s/ Scott Wolchko
Name: Scott Wolchko
Title: CFO

Accepted and Agreed:

/s/ Mark Enyedy
Mark Enyedy

May 30, 2012

EXHIBIT 10.9

CERTAIN CONFIDENTIAL PORTIONS OF THIS EXHIBIT WERE OMITTED AND REPLACED WITH "[***]". A COMPLETE VERSION OF THIS EXHIBIT HAS BEEN FILED SEPARATELY WITH THE SECRETARY OF THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO AN APPLICATION REQUESTING CONFIDENTIAL TREATMENT UNDER RULE 406 OF THE SECURITIES ACT OF 1933.

EXCLUSIVE LICENSE AGREEMENT

BETWEEN

CHILDREN'S MEDICAL CENTER CORPORATION

AND

FATE THERAPEUTICS, INC.

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EXCLUSIVE LICENSE AGREEMENT

This Agreement is made and entered into as of the date last written below (the "Effective Date"), by and between CHILDREN'S MEDICAL CENTER CORPORATION, a charitable corporation duly organized and existing under the laws of the Commonwealth of Massachusetts and having its principal office at 300 Longwood Avenue, Boston, Massachusetts, 02115, U.S.A. (hereinafter referred to as "CMCC"), and FATE THERAPEUTICS, INC., a business corporation organized and existing under the laws of the state of Delaware and having its principal office at 10931 N. Torrey Pines Rd, Suite 107, La Jolla, CA 92037, U.S.A. (hereinafter referred to as "Licensee").

WHEREAS, CMCC is the co-owner with General Hospital Corporation d/b/a Massachusetts General Hospital ("MGH") of certain Patent Rights (as that term shall be defined hereafter); and MGH and CMCC have signed a Joint Invention Agreement for dated May 12, 2009, that appoints CMCC as the exclusive agent for licensing such Patent Rights; and CMCC has the right to grant exclusive licenses under the Patent Rights, subject only to a royalty-free, nonexclusive license granted to the United States Government for those inventions and ensuing patents developed with U.S. Government funding, and certain laws and regulations relating to Federally-funded projects and institutions;

WHEREAS, in furtherance of its charitable and research missions and those laws and regulations, CMCC desires to have the Patent Rights utilized to promote the public interest and to further that goal is willing to grant a license to Licensee on the terms and conditions described herein;

WHEREAS, Licensee has represented to CMCC that Licensee is ready, willing and able to engage in the commercial development, production, manufacture, marketing and sale of Licensed Products (as that term shall be defined hereafter) and/or the use of Licensed Processes (as that term shall be defined hereafter) and that it will implement a diligent development program as described in this Agreement;

WHEREAS, Dr. Leonard Zon, an inventor of this technology, and an employee of the Howard Hughes Medical Institute ("HHMI") doing research at the HHMI laboratory at the Children's Hospital Boston, currently holds an Investigational New Drug application ("ZON IND" as that term is defined below) titled "A Phase I Study of Reduced Intensity, Sequential Double Umbilical Cord Blood Transplantation Using Ex-Vivo 16,16 Dimethyl-Prostaglandin E2 Expanded Umbilical Cord Blood Units", reference number IND# BB-IND 13721, and Licensee plans to support clinical trials under such ZON IND; and

WHEREAS, Licensee desires to obtain an exclusive license, within a designated territory and for a prescribed field of use, relating to certain licensed products and processes within the scope of the Patent Rights, subject to the terms and conditions of this Agreement, all as provided below;

NOW, THEREFORE, in consideration of the promises and the mutual covenants contained herein, the parties hereto agree as follows:

ARTICLE I. DEFINITIONS

For the purpose of this Agreement, the following words and phrases shall have the meanings set forth below:

A. "Affiliate" shall mean any company or other legal entity actually controlling, controlled by or under common control with Licensee. For purposes of the definition of "Affiliate" the term "control" shall mean: (i) in the case of an entity, the ability to effect the election of a majority of the directors, or direct or indirect ownership of greater than fifty percent (50%) of the stock or participating shares entitled to vote for the election of directors of that entity; (ii) in the case of a partnership, the power customarily held by a managing partner to direct the management and policies of such partnership, provided that such power is actively exercised; or (iii) in the case of a joint venture, whether in corporate, partnership or other legal form, an equal or prevailing joint economic interest coupled with a managerial role entailing active direction, control and accountability with respect to the business and affairs of the entity.

B. "Combination Product(s) or Process(es)" shall mean a product or process that includes a Licensed Product or Licensed Process sold in combination with another component(s), the manufacture, use or sale of which component(s) by an unlicensed party would not constitute an infringement of a Patent Right claim pending or issued, valid, enforceable and unexpired.

C. "Ex Vivo Therapy" shall mean treating a population of cells with a Licensed Product or Licensed Process to introduce or reintroduce such cells into a human subject.

D. “Field of Use” shall mean all fields of use.

E. “First Commercial Sale” shall mean, with respect to each country: (i) the first sale of any Licensed Product or Licensed Process by Licensee or any Sublicensee, following approval of such Licensed Product’s or Licensed Process’s marketing by the appropriate governmental agency, if any such approval is necessary, for the country in which the sale is to be made; or (ii) when governmental approval is not required, the first sale in that country of the Licensed Product or Licensed Process.

F. “ZON IND” shall mean the investigational new drug application titled “A Phase I Study of Reduced Intensity, Sequential Double Umbilical Cord Blood Transplantation Using Ex-Vivo 16,16 Dimethyl-Prostaglandin E2 Expanded Umbilical Cord Blood Units”, reference number IND# BB-IND 13721.

G. “In Vivo Therapy” shall mean direct administration to a human subject of a Licensed Product(s) or Licensed Process, and shall not include Ex Vivo Therapy.

H. “Licensed Product” shall mean any product or part thereof in the Field of Use:

1. The manufacture, use or sale of which would infringe any one of the issued, valid, enforceable, unexpired claim(s) or any one of the pending claim(s) contained in the Patent Rights in any country within the Territory. A claim of any issued, unexpired Patent Right shall be presumed to be valid and enforceable unless and until it has been held to be invalid or unenforceable by a final judgment of a court of competent jurisdiction from which no appeal can be or is taken; or

2. The manufacture or use of which uses a “Licensed Process” as that term shall be defined hereafter; or

3. Is a Licensed Process.

I. “Licensed Process(es)” shall mean any process(es) that would infringe any one of the issued, valid, enforceable, unexpired claim(s) or any one of the pending claim(s) contained in the Patent Rights in any country in the Territory. A claim of any issued, unexpired Patent Right shall be presumed to be valid and enforceable unless and until it has been held to be invalid or unenforceable by a final judgment of a court of competent jurisdiction from which no appeal can be or is taken.

J. “Licensee” shall mean Licensee, and successors and assignees permitted by this Agreement (including Affiliates where they are assignees permitted by this Agreement).

K. “Net Sales” shall mean the gross sales price invoiced for sales, leases, or other transfers of Licensed Products received by Licensee, its Affiliates, or its Sublicensees for any Licensed Products to a final customer who will be an end user of the Licensed Product and is not an Affiliate or Sublicensee, less (to the extent appropriately documented) the following amounts:

(a) credits and allowances for price adjustment, rejection, or return of Licensed Products previously sold;

(b) rebates, quantity and cash discounts to purchasers allowed and taken;

(c) amounts for third party transportation, insurance, handling or shipping charges to purchasers;

(d) taxes, duties and other governmental charges levied on or measured by the sale of Licensed Products, whether absorbed by Licensee or paid by the purchaser so long as Licensee’s price is reduced thereby, but not franchise or income taxes of any kind whatsoever; and

(e) for any sale in which the United States government, on the basis of its royalty-free license pursuant to 35 USC Sec. 202(c) to any Patent Right, requires that the gross sales price of any Licensed Product subject to such Patent Right, be reduced by the amount of such royalty owed CMCC, the amount of such royalty.

Net Sales also includes the fair market value of any non-cash consideration received by Licensee, its Affiliates or its Sublicensees for the sale, lease, or transfer of Licensed Products. Transfer of a Licensed Product within Licensee or between Licensee and an Affiliate or between Licensee and a Sublicensee for sale by the transferee shall not be considered a Net Sale for purposes of ascertaining royalty charges. In such circumstances, the gross sales price and resulting Net Sales price shall be based upon the sale of the Licensed Product by the transferee.

L. “Non-Royalty Sublicensing Income” shall mean any payments or other consideration that Licensee or any of its Affiliates receives (subject to permitted exclusions as set forth below) other than amounts received on account of Net Sales (i.e., excluding royalty or

profit share amounts based on Net Sales) in consideration of a sublicense under this Agreement (including any fees or consideration for the grant of an option to obtain a sublicense), including without limitation license fees, milestone payments and license maintenance fees, but specifically excluding: (a) payments specifically committed to cover costs to be actually incurred by Licensee (including equipment purchases, manufacturing costs, and full-time equivalent personnel actually provided by Licensee or its Affiliates) in the research and development and commercialization of Licensed Products which are the subject matter of the sublicense under this Agreement, (b) reimbursement of payments paid by Licensee for payments under Article IV Royalties, Milestones, Equity and Other Payments hereunder, (c) loans or other debt obligations (any amounts of which are forgiven shall be deemed Non-Royalty Sublicensing Income), (d) amounts received from any third party for the purchase of equity at fair market value (where any amounts paid in excess of fair market value shall be deemed Non-Royalty Sublicensing Income), and (e) payments to reimburse future out-of-pocket patent prosecution, defense, enforcement costs and maintenance and/or other related expenses up to the amount of the actual cost incurred by Licensee in connection with the Patent Rights contractually committed by Sublicensee. To the extent that rights or obligations other than the Patent Rights are sublicensed by Licensee and/or its Affiliates, any income received will be equitably apportioned between those Patent Rights and those other rights and obligations for purposes of calculating the amounts owed CMCC pursuant to Non-Royalty Sublicensing Income. The parties shall determine the apportionment in good-faith negotiations, and Licensee shall provide reasonable documentation to CMCC in support of such apportionment. In the event CMCC disagrees with the determination made by Licensee, CMCC shall so notify Licensee within thirty (30) days of receipt of Licensee's report and the parties shall meet to discuss and resolve such disagreement in good faith.

M. "Patent Rights" shall mean all of the following intellectual property which CMCC owns, CMCC and MGH co-own, or CMCC has rights to during the Term of this Agreement as hereafter defined as: (i) the United States patent applications listed in Appendix 1 incorporated herein, and any patents issuing on the foregoing patent applications; (ii) all divisionals, continuations, reissues, reexaminations, substitutions, or extensions of such patent applications listed in Appendix 1, and any patents issuing therefrom; (iii) claims of continuation-in-part applications and continuation-in-part patents directed to subject

matter specifically described in the patent applications listed in Appendix 1; and (iv) any foreign counterpart patent applications or issued patents to any such patent rights described in clauses (i), (ii) or (iii) above.

N. "Royalty or Royalties" shall mean the royalties on Net Sales pursuant to Article IV A of this Agreement.

O. "Sublicensee" shall mean a person or entity not Affiliated with Licensee to whom Licensee has granted an arm's length sublicense under this Agreement.

P. "Territory" shall mean worldwide.

Q. "Term" shall have the meaning stated in paragraph A of Article XIII.

R. "Third Party Proposed Product" shall mean an actual or potential Licensed Product within the Field of Use that (a) is aimed at an indication for which no Licensed Product is being, or within a [***] period is planned to be (as demonstrated by Licensee's then current development and commercialization plans), developed, manufactured, used, marketed or sold by Licensee, its Affiliate, or its Sublicensee under a sublicense, and (b) does not present any material risk of competing through off-label use with any Licensed Product that is being, or within a [***] period is planned to be (as demonstrated by Licensee's then current development and commercialization plans), developed, manufactured, used, marketed or sold by Licensee, its Affiliate, or its Sublicensee.

ARTICLE II. GRANT

A. Subject to the terms of this Agreement, and conditioned on the faithful performance by Licensee of its obligations, CMCC hereby grants to Licensee the worldwide and exclusive license with a right to sublicense, under the Patent Rights, to make, have made, use, have used, offer for sale, have offered for sale, import, have imported, have sold and sell the Licensed Products, and to practice the Licensed Processes, in the Territory for the Field of Use to the end of the Term, unless sooner terminated as provided in this Agreement.

B. Notwithstanding anything above to the contrary, CMCC shall retain a royalty-free, nonexclusive right to practice and use, the Patent Rights including all biological or other materials described therein, for research, educational, clinical and / or charitable purposes and to license for a nominal fee (such as shipping and handling charges) to other academic and/or nonprofit organizations to practice and/or use, the Patent Rights for research, educational, and/or charitable purposes and for any additional purpose whatsoever not exclusively granted to Licensee by Section A of this Article. Any such license by CMCC to non-profit institutions shall specifically exclude and prohibit clinical use and commercialization of the Patent Rights to the extent granted in this license unless the licensee of such license by CMCC enters into an agreement with Licensee on terms consistent with this Agreement but in other respects agreeable to Licensee in Licensee's sole discretion. Licensee agrees that HHMI and MGH shall retain a paid up, non-exclusive irrevocable license to use the Patent Rights for its research purposes, but with no right to assign or sublicense.

C. Notwithstanding any other provision of this Agreement, the license and any sublicense shall be subject to the rights of the United States government, if any, under Public Law 96-517, 97-226, and 98-620, codified at 35 U.S.C. sec. 200-212 and any regulations promulgated thereunder; the obligations of CMCC under applicable laws and regulations; and Licensee's warranty to comply with all applicable laws and regulations.

D. Licensee agrees that Licensed Products leased or sold in the United States shall be manufactured substantially in the United States. Upon the First Commercial Sale and thereafter, Licensee's annual report to CMCC shall substantiate Licensee's compliance with this provision. To support exclusivity for Licensee consistent with this Agreement, CMCC hereby agrees that it shall not, without Licensee's prior written consent, grant to any other commercial party a license to make, have made, use, have used, offer for sale, have offered for sale, import, have imported, have sold and/or sell Licensed Products, or to practice the Licensed Processes, in the Field of Use, during the period of time in which this Agreement is in effect, except as required by laws affecting the rights of the United States Government.

E. Provided that the Licensee is not in breach of this Agreement, the licenses and other rights granted herein shall extend to Licensee's Affiliates, present and future, subject to any such Affiliate's compliance with the terms hereof.

F. The license granted hereunder shall not be construed to confer any rights upon Licensee by implication, estoppel or otherwise as to any inventions, discoveries, know-how, technology or other intellectual property not described in Paragraph A of this Article II. As a condition of the license granted hereunder, Licensee hereby irrevocably covenants and agrees that it will not, directly or indirectly, in any respect, use non-public information it has acquired in the course of prosecution of the Patent Rights from CMCC and/or patent counsel of CMCC prosecuting the Patent Rights, or recommendations made by Licensee that have been implemented, in whole or in part, with respect to prosecution of the Patent Rights, as a part of a Challenge (as defined below) to the Patent Rights or CMCC's ownership of such rights. Any assignment or sublicense granted by Licensee shall contain an identical commitment by the assignee or sublicensee.

G. Licensee will provide written notice to CMCC at least one hundred eighty (180) days prior to Licensee or its Affiliate(s) instituting or alleging in any action or proceeding that challenges the Patent Rights or CMCC's ownership of such Patent Rights, except as required under a court order or subpoena (collectively "Challenges"). Licensee will include with such written notice a list of the relevant prior art and a description of the other facts and arguments that support its Challenge to attempt in good faith to mutually resolve such issues. In the event Licensee brings any Challenge under any court action or proceeding and does not comply with the notice provisions under this Paragraph H, CMCC has the right to immediately terminate this Agreement without any liability and without any opportunity to cure by Licensee upon written notice to Licensee. In the event that a Sublicensee brings any Challenge under any court action or proceeding, Licensee agrees that it will terminate such Sublicense promptly after receiving written notice of such Challenge by CMCC.

H. Nothing in this Agreement shall be construed to limit or constrain CMCC or MGH, or any officer, director, employee, member of their medical staff, or of any CMCC or MGH Affiliate, from continuing to engage in related research; or from the development of related or unrelated inventions, discoveries, rights or technology, and from practicing, licensing or sublicensing related or unrelated intellectual property rights arising from inventions occurring after the Effective Date of this Agreement; or from academic publication related thereto; or from entering into agreements and other relationships with other persons or organizations related to matters not directly and expressly within the scope of this Agreement.

I. Provided that Licensee is not then in breach of this Agreement, the ZON IND shall be transferred to Licensee within thirty days after the last to occur of all of the following:

(i) Licensee has paid to CMCC the fees then due to CMCC pursuant to this License Agreement contained in Article IV;

(ii) Licensee has obtained Institutional Review Board ("IRB") approval from all participating study sites for the clinical trials (as described in the Ex Vivo Development Plan (as defined below) under the ZON IND;

(iii) Licensee has a valid, fully executed clinical trial agreement with each participating study site under the ZON IND;

(iv) Licensee has provided to CMCC copies of all such clinical trial agreements and IRB approvals; and

(v) a written status report demonstrating compliance with the Ex Vivo Development Plan, and the financial capacity to meet its requirements for the duration of the clinical trials.

J. Licensee shall have the right to enter into sublicensing agreements with respect to any of the rights, privileges, and licenses granted hereunder, subject to the terms and conditions hereof**.** CMCC agrees that, in the event CMCC terminates this Agreement for any reason, then CMCC shall provide to known Sublicensees, no less than thirty (30) days prior to the effective date of said termination, written notice of said termination at the address specified by Licensee in the notice provided to CMCC under Paragraph L of this Article. If the Sublicensee, during that thirty (30) day period, provides to CMCC authorized and written notice that the Sublicensee: (i) reaffirms the terms and conditions of this Agreement as it relates to the rights the Sublicensee has been granted under the sublicense; (ii) agrees to abide by all of the terms and conditions of this Agreement applicable to the Sublicensee and to discharge directly all pertinent obligations of Licensee which Licensee is obligated hereunder to discharge and (iii) acknowledges that CMCC shall have no obligations to the Sublicensee other than its pertinent obligations set forth in this Agreement with regard to Licensee, then, provided that the Sublicensee notice conforms to the requirements of this Paragraph K, and Sublicensee is not in material breach of its sublicense, CMCC shall grant to such Sublicensee license rights and terms equivalent to the sublicense rights and terms which the Licensee shall

have previously granted to said Sublicensee, to the extent that those rights were granted by CMCC to the Licensee under this Agreement. In any event, the Sublicensee shall remain a Sublicensee under this Agreement for a period of at least [***] following notice by CMCC under this Paragraph K.

K. In any event, Licensee agrees that any sublicense granted by it shall provide that the obligations to CMCC of Articles II (Grant), V (Reports and Records), VII (Infringement), VIII (Insurance and Indemnification), IX (Compliance with Laws; Export Controls), X (Non-Use of Names), XI (Assignment), XII (Dispute Resolution), XIII (Term and Termination) and XV (General Provisions) of this Agreement and all of the license terms included in this Agreement for the protection of HHMI or MGH, shall be binding upon the Sublicensee, for the benefit of CMCC, HHMI and MGH, as if it were a party to this Agreement. In addition, every sublicense shall (i) contain within it requirements for commercially reasonable due diligence in developing or exploiting the Patent Rights, or selling Licensed Products, as specifically applicable, (ii) obligate Licensee to enforce those provisions consistent with achieving Licensee's obligations pursuant to this Agreement, and (iii) make CMCC a third-party beneficiary of the sublicense, with the right, but not the obligation, to enforce Licensee's rights in the event Licensee fails to, provided that CMCC has provided Licensee thirty (30) days written notice to Licensee of CMCC's intention to do so. Licensee agrees to provide to CMCC notice of any sublicense granted hereunder and to forward to CMCC a copy of any and all fully executed sublicense agreements within thirty (30) days of execution. Licensee further agrees to forward to CMCC annually a copy of such reports received by Licensee from its Sublicensees during the preceding twelve (12) month period as shall be pertinent to a royalty accounting under the applicable sublicense and compliance with the other terms of this Agreement.

L. Licensee shall advise CMCC in writing of any consideration received from Sublicensees and, at CMCC's request, provide such information in an electronic or other format recognizable by CMCC's data processing systems. Licensee shall not accept from any Sublicensee anything of value in lieu of cash payments to discharge Sublicensee's payment obligations under any sublicense granted under this Agreement, without the

* Confidential Information, indicated by [***], has been omitted from this filing and filed separately with the Securities and Exchange Commission

express written permission of CMCC, which permission shall not be unreasonably withheld but may take into account a reasonable valuation for purposes of Licensee's payment obligations to CMCC. In the event of a dispute as to the amount of Non-Royalty Sublicensing Income arising from such consideration, if the parties are unable to resolve the dispute after [***], and the parties have not agreed on a less formal means of arriving at agreement concerning the dispute, the issue shall be resolved by in accordance with Article XII.

M. All Royalty, Milestones and any payments owed to CMCC pursuant to this Agreement shall be paid by Licensee to CMCC whether achieved by Licensee or Sublicensee.

ARTICLE III. DUE DILIGENCE AND RELATED MATTERS

A. Licensee, upon execution of this Agreement, shall use commercially reasonable efforts in good faith to bring one or more Licensed Products to market as soon as practicable, consistent with sound and legal business practices and judgment, through a vigorous and diligent program for exploitation of the Patent Rights. Licensee shall use commercially reasonable efforts to obtain all necessary government approvals for the manufacture, use, sale and distribution of one or more Licensed Products. Thereafter, Licensee agrees that until expiration or termination of this Agreement, Licensee shall continue active and diligent efforts, consistent with sound and legal business practices and judgment, to keep Licensed Product(s) reasonably available to the public, in quantities sufficient to meet market demand, in the Territory. In the event Licensee decides not to exploit a licensed Patent Right, or Field of Use or sub-field of use, in the Territory or in a given portion of the Territory (e.g. a country or countries), it shall promptly inform CMCC in writing and shall surrender to CMCC its license to that Patent Right or Field of Use or sub-field of use in that Territory or in that given portion of the Territory.

B. Upon execution of this Agreement, Licensee shall provide to CMCC an initial written commercialization and development plan in the field of Ex Vivo Therapy ("Ex Vivo Development Plan") setting forth the initial indications and markets for Licensed

* Confidential Information, indicated by [***], has been omitted from this filing and filed separately with the Securities and Exchange Commission

Products and Licensed Processes, including (i) time-delimited targets for pre-clinical development, clinical trials, regulatory approval, manufacturing and marketing that represent reasonable efforts, consistent with industry norms for similar technology and applications, to bring one or more Licensed Products to the marketplace; and (ii) actual or projected financial resources and/or strategic alliances that may be required to implement the Ex Vivo Development Plan; and (iii) identified project management structure calculated to meet the objectives and commitments in the Ex Vivo Development Plan. The Ex Vivo Development Plan is attached hereto as Appendix 2 and is hereby incorporated herein by reference.

C. Licensee shall provide to CMCC a development plan for an In Vivo Therapy pursuant to this Agreement ("In Vivo Development Plan"), which shall be attached as Appendix 3 and incorporated herein, and Licensee shall fulfill the same obligations set forth in Paragraph B of this Article regarding such plan. The In Vivo Development Plan may be amended only by good faith negotiations and mutual written agreement by CMCC and Licensee.

D. Licensee shall use, or shall cause one or more of its Affiliates and/or Sublicensees to use, good faith and diligent efforts, consistent with sound and legal business practices and judgment, to accomplish the milestones set forth in the Ex Vivo Development Plan, the In Vivo Development Plan and to manufacture and distribute one or more Licensed Products.

E. Notwithstanding anything above to the contrary, CMCC shall not unreasonably withhold its consent to any revision of the objective(s) set forth in the Ex Vivo Development Plan and/or the In Vivo Development Plan and/or the Proposed Product Development Plan (as defined below) when requested in writing by Licensee and the request is supported by evidence reasonably acceptable to CMCC: (i) of technical difficulties or delays in the clinical studies or regulatory process that could not reasonably have been known or avoided; (ii) that Licensee is proposing and will implement satisfactory means of addressing such difficulties or delays, including sufficient financial and technical resources; and (iii) that Licensee, its Affiliates and/or Sublicensees [***]. In the event

* Confidential Information, indicated by [***], has been omitted from this filing and filed separately with the Securities and Exchange Commission

Licensee materially fails to meet the objective(s) set forth in the Ex Vivo Development Plan and/or the In Vivo Development Plan and/or the Proposed Product Development Plan, CMCC shall notify Licensee thereof in writing, and Licensee shall have [***] following such notification to establish, to the reasonable satisfaction of CMCC, that [***] as contemplated above. In the event Licensee fails to establish the same to CMCC's reasonable satisfaction, CMCC shall have the right, in its sole discretion, to terminate in part the license granted to Licensee under this Agreement effective immediately, with respect to the applicable field of the Ex Vivo Development Plan and/or In Vivo Development Plan and/or Proposed Product Development Plan to which such failure relates, namely Ex Vivo Therapy, In Vivo Therapy or the field for the applicable Third Party Proposed Product, respectively.

F. If at any time following the [***], a third party makes a bona fide proposal to CMCC for developing a Third Party Proposed Product and CMCC is interested in having such Third Party Proposed Product developed and commercialized, CMCC shall notify Licensee of such proposal and shall provide Licensee with all necessary information regarding the Third Party Proposed Product, including the involvement sought by such third party, such that Licensee may assess its interest in such Third Party Proposed Product.

(i) If Licensee notifies CMCC within ninety (90) days of the receipt of such notification from CMCC that it is interested in developing such Third Party Proposed Product, Licensee shall provide to CMCC, in a timely manner, a development plan for such Third Party Proposed Product (the "Proposed Product Development Plan"). Licensee shall use, or shall cause one or more of its Affiliates and/or Sublicensees to use, good faith and diligent efforts, consistent with sound and legal business practices and judgment, to accomplish the milestones set forth in such and/or Proposed Product Development Plan.

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(ii) If Licensee does not notify CMCC within ninety (90) days of the receipt of such notification from CMCC that it is interested in developing such Third Party Proposed Product, CMCC shall be entitled to grant an exclusive license or a non-exclusive license in each case with a field limitation to such third party with respect to the Third Party Proposed Product. If CMCC does not enter into an agreement with such third party regarding the Third Party Proposed Product within one hundred eighty (180) days following the delivery of notice to Licensee, then CMCC must again comply with the provisions of this Article III Paragraph F(ii). If CMCC enters into an agreement with such third party regarding the Third Party Proposed Product within one hundred eighty (180) days following the delivery of notice to Licensee, CMCC shall provide written notice to Licensee of such agreement.

G. If, during the course of this Agreement, Licensee makes any discovery or invention that is described in a patent application, and is not within the scope of the Patent Rights but would not have been made but for the Patent Rights, Licensed Products or Licensed Processes licensed hereunder, Licensee shall, as a condition of this License, confidentially disclose such discovery or invention via such patent application to CMCC, on usual and customary terms necessary to protect its confidentiality as a trade secret. Recognizing that CMCC enters into this Agreement in furtherance of its charitable academic research mission, Licensee shall enter into with CMCC a non-exclusive license or permit, as applicable, including no more than a nominal fee, for CMCC to practice such discovery or invention, whether or not patented, solely for CMCC internal research purposes or clinical purposes and not for commercial purposes (the "Licensee Inventions"). CMCC will notify Licensee in writing if and when CMCC makes any discovery or invention that (i) is disclosed to CMCC's Technology and Innovation Development Office, (ii) is described or will be described in a patent application, and (iii) to the knowledge of CMCC's Technology and Innovation Development Office, would not have been made but for the Licensee Inventions licensed to CMCC hereunder, and with respect thereto, Licensee will have a first option to take an exclusive license to such CMCC discovery or invention, subject to any prior existing third party obligations of CMCC, where such license shall be on commercially reasonable terms (including royalties and other payments to CMCC) mutually agreed to by the parties.

ARTICLE IV. ROYALTIES, MILESTONES, EQUITY, AND OTHER PAYMENTS

A. For the rights, privileges and exclusive license granted hereunder, Licensee shall pay to CMCC the following amounts in the manner hereinafter provided. Unless expressly stated otherwise in this Agreement, periodic payment obligations listed below shall endure through the Term of this Agreement, unless this Agreement shall be sooner terminated as hereinafter provided:

1. A license issue fee of $[***] ([***] dollars), of which one half of such license issue fee of $[***] ([***] dollars) shall be deemed earned and due immediately upon the execution of this Agreement and the remaining $[***] ([***] dollars) shall be paid by Licensee to CMCC within thirty (30) days of the first anniversary of the Effective Date. The Option Fee in the amount of $[***] ([***] dollars) paid by Licensee to CMCC under the Letter of Intent dated May 5, 2008 by and between the parties shall be credited against such initial $[***] ([***] dollars) license issue fee, with the remaining $[***] ([***] dollars) due immediately upon the execution of this Agreement.

2. Payments for accrued and continuing patent prosecution costs as stated in Article VI hereof.

3. Beginning on the third anniversary of the Effective Date, a License Maintenance Fee of $[***] shall be paid annually by Licensee to CMCC within thirty (30) days of the anniversary of the Effective Date of this Agreement, such License Maintenance Fee will be creditable against Milestones or Royalty payments due and payable in any given year.

4. License Maintenance Fees paid in excess of Royalties shall not be creditable against Royalties due in future years.

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5. Licensee shall make the following payments to CMCC within thirty (30) days of the occurrence of the following events (together with the amount potentially payable to CMCC in subparagraph 6 of this Article IV.A., collectively "Milestones"):

a. $[***] ([***] dollars) upon the issuance of the first U.S. patent under the Patent Rights that is exclusively licensed to Licensee covering the use of a drug that stimulates hematopoietic stem cell growth in a human; provided that such drug is in clinical use or clinical development by Licensee.

b. Licensee shall make the following payments to CMCC within thirty (30) days of the occurrence of the following events for each Licensed Product intended for Ex Vivo Therapy:

i. $[***] upon [***];

ii. $[***] upon [***]; and

iii. $[***] upon [***].

c. Licensee shall make the following payments to CMCC within thirty (30) days of the occurrence of the following events for each Licensed Product intended for In Vivo Therapy:

i. $[***] upon [***];

ii. $[***] upon [***];

iii. $[***] upon [***];

iv. $[***] upon [***]; and

v. $[***] upon [***].

For clarity, a Licensed Product under this subparagraph 5, Article IV.A, shall be a different Licensed Product from a predecessor only if such latter Licensed Product

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requires a new IND for regulatory development and commercialization; for example and without limitation, label expansions for a Licensed Product will not constitute a new Licensed Product for purposes of this subparagraph 5. In addition, if a Licensed Product for which Licensee has previously made Milestone payments hereunder does not reach the market, all such Milestone payments paid to CMCC shall be creditable against all future Milestone payments owed.

6. Milestone for Cumulative Product Sales

Licensee shall pay to CMCC $[***] ([***] dollars) within thirty (30) days of the achievement of annual Net Sales of Licensed Products of an aggregate of $[***] in countries where such Licensed Products are covered by a pending or valid, enforceable, unexpired and issued patent within the Patent Rights.

7. Offset on Milestone Payments

To the extent that the Licensee or any of its Affiliate(s) or Sublicensee(s) is reasonably required to obtain, subsequent to the date of this Agreement, licenses to third party patents or other intellectual property that dominates or is dominated by the Patent Rights in order to practice the Patent Rights, or to develop, commercialize, produce or sell Licensed Products in a particular country and avoid infringing such third party patent rights or intellectual property, Licensee may deduct, from the Milestone payments for sales or market approval in such country due to CMCC hereunder in connection with such Licensed Product, [***]% ([***] percent) of the payment due under agreements between Licensee (and its Affiliates and Sublicensees, as applicable) and a third party(ies) on such patents or intellectual property, up to an amount equal to [***]% ([***] percent) of the Milestone payments due to CMCC hereunder for such Licensed Product; provided that such deduction reflects a pro rata or other fair apportionment among Licensee and other milestone payment obligations of Licensee for required licenses and other intellectual property of Licensee (and its Affiliates and Sublicensees, as applicable), as reasonably documented by Licensee. Licensee shall provide to CMCC upon its request, copies of such documentation.

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8. Royalties on Net Sales

a. Licensee shall pay to CMCC, Royalties for In Vivo Therapy in an amount equal to [***]% ([***] percent) of Net Sales of Licensed Products in those countries where such sale, lease or transfer then infringes any issued, valid, enforceable, unexpired claim(s) or any pending claim(s) contained in the Patent Rights.

b. Licensee shall pay to CMCC, Royalties for Ex Vivo Therapy in an amount equal to [***]% ([***] percent) of Net Sales of Licensed Products in those countries where such sale, lease or transfer then infringes any issued, valid, enforceable, unexpired claim(s) or any pending claim(s) contained in the Patent Rights.

9. Offset of Royalties on Net Sales

To the extent that Licensee or any of its Affiliates or Sublicensees is reasonably required to obtain, subsequent to the date of this Agreement, licenses to third party patents or other intellectual property that dominates or is dominated by the Patent Rights, in order to practice the Patent Rights or to develop, commercialize, produce or sell Licensed Products in a particular country and avoid infringing such third party patent rights or intellectual property, Licensee may deduct from the Royalties due to CMCC for that country [***]% ([***] percent) of the royalties due on such third party patents or intellectual property up to an amount equal to [***]% ([***] percent) of Royalties hereunder, provided that such deduction reflects a pro rata or other fair apportionment among Licensee and other royalty obligations of Licensee for required licenses and other intellectual property of Licensee (and its Affiliates and Sublicensees, as applicable), as reasonably documented by Licensee. Licensee shall provide to CMCC upon its request, copies of such documentation.

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10. Distribution of Non-Royalty Sublicensing Income

In the event that Licensee has granted sublicenses under this Agreement, Licensee shall pay Non-Royalty Sublicensing Income to CMCC for each such sublicense based upon the following schedule:

a. [***]% ([***] percent) of Non-Royalty Sublicensing Income due to CMCC if sublicensed before [***].

b. [***]% ([***] percent) of Non-Royalty Sublicensing Income due to CMCC if sublicensed after [***].

c. [***]% ([***] percent) of Non-Royalty Sublicensing Income due to CMCC if sublicensed after [***].

d. [***]% ([***] percent) of Non-Royalty Sublicensing Income due to CMCC thereafter.

e. $[***] ([***]) dollars payable to CMCC upon the execution of the first sublicense agreement. This amount is creditable against Non-Royalty Sublicensing Income due to CMCC for such sublicensing agreement.

11. Equity

As of the Effective Date of this Agreement, Licensee has represented to CMCC that Licensee has outstanding on a fully-diluted, as-converted to common stock basis 23,154,161 shares of common stock and preferred stock, and has received $14.6 million dollars in equity investment according to the equity capitalization chart attached as Appendix 4 and incorporated herein.

a. Pursuant to a mutually agreeable subscription agreement, Licensee shall issue to CMCC, in partial consideration for this Agreement and for no further payment by CMCC, [***] shares of Licensee's common stock upon execution of the Agreement.

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b. Pursuant to a mutually agreeable subscription agreement, Licensee shall issue to CMCC [***] shares of Licensee common stock upon enrollment of the first patient in a Phase II clinical trial of a Licensed Product in the United States or the European Union sponsored by Licensee or its Affiliate.

c. For clarity, MGH will not receive any share of the equity issued to CMCC nor any revenue or further compensation from the sale, surrender or exchange of such equity by CMCC.

12. Future Clinical Trial Conflict Resolution: Divestment of Equity

a. This Agreement does not presently contemplate that Licensee, any Sublicensee, or an Affiliate of either will sponsor basic or clinical research, or collaborate in research, or transfer materials, to researchers at CMCC or any CMCC Affiliate. In the event that situation changes, the agreement reflecting such sponsorship, collaboration, or materials transfer will be structured to comply with applicable policies, rules and/or determinations of the Howard Hughes Medical Institute, Harvard Medical School, the National Institutes of Health, and Children's Hospital Boston (including the Children's Hospital Boston IRB), to the extent applicable. Licensee acknowledges that entering into such arrangements may require CMCC and/or researchers at CMCC or its Affiliates to divest themselves of equity acquired by CMCC as an accommodation to Licensee in lieu of cash payments under this Agreement, and that such shares would therefore become prohibited ("Prohibited Shares"). In that event, CMCC shall promptly notify Licensee in writing of the conflict, and the Licensee shall propose one of the following for CMCC's acceptance, such acceptance not to be unreasonably withheld:

i. an exchange of the Prohibited Shares for other equity securities, valued at the Fair Market Value (as defined below) of the Prohibited Shares, in the possession of the Licensee or an Affiliate which would not result in a conflict;

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ii. a repurchase by the Licensee of the Prohibited Shares at a repurchase price equal to the Fair Market Value of the Prohibited Shares;

iii. an exchange of the Prohibited Shares for debt securities of the Licensee with a face value equal to or, upon mutual agreement of the parties, exceeding the Fair Market Value of the Prohibited Shares and such other terms as are mutually satisfactory, based on, for example, the current and projected solvency of the Licensee; or

iv. the making by the Licensee of an unrestricted grant, or grants (on a mutually acceptable schedule), equal to or, upon mutual agreement of the parties, exceeding the Fair Market Value of the Prohibited Shares to CMCC for the benefit of research.

The parties recognize that, given the promising nature of the technology, the value of the Prohibited Shares will not be reflected in their face or par value. If the Prohibited Shares are publicly traded, ("Fair Market Value") shall be established by review of market trading data. The parties acknowledge that valuation of unregistered securities in an uncertain technological field is not simply a matter of total cumulative capitalization. Therefore, in the event that the Prohibited Shares are not publicly traded, to establish Fair Market Value the parties will rely on a third-party valuation expert proposed by Licensee and reasonably acceptable to CMCC, where it is acknowledged that such third-party valuation expert shall use standard valuation methodologies for not publicly traded securities that are commonly accepted in the accounting industry.

B. No multiple royalties shall be payable because any Licensed Product or Licensed Process, its manufacture, use, importation, offer for sale or sale are or shall be covered by more than one Patent Rights patent application or Patent Rights patent licensed under this Agreement.

C. For purposes of calculating royalties, in the event that a Licensed Product includes both component(s) covered by a claim of a Patent Right ("Patented Component") and a component which is diagnostically useable or therapeutically active alone or in a combination which does not require the Patented Component, and such component is not covered by a claim of a Patent Right ("Unpatented Component"), in each case where

such Patent Right claim is pending or issued, unexpired, valid and enforceable, then Net Sales of the Combination Product or Combination Process shall be calculated using one of the following methods:

1. By multiplying the Net Sales of the Combination Product or Combination Process during the applicable royalty accounting period ("Accounting Period") by a fraction, the numerator of which is the aggregate gross selling price of the Patented Component(s) contained in the Combination Product or Combination Process if sold separately, and the denominator of which is the sum of the gross selling price of both the Patented Component(s) and the Unpatented Component(s) contained in the Combination Product or Combination Process if sold separately; or

2. In the event that no such separate sales are made of the Patented Component(s) or the Unpatented Components during the applicable Accounting Period in the applicable country , Net Sales for purposes of determining royalties payable hereunder shall be calculated by multiplying the Net Sales of the Combination Product or Combination Process by a fraction, the numerator of which is the fully allocated production cost of the Patented Component(s) and the denominator of which is the sum of the fully allocated production costs of the Patented Component(s) and the Unpatented Component(s) contained in the Combination Product or Combination Process. Such fully allocated costs shall be determined by using Licensee's standard accounting procedures, which procedures must conform to standard cost accounting procedures.

D. Royalty payments shall be paid in United States dollars in Boston, Massachusetts, or at such other U.S. place as CMCC may reasonably designate consistent with the laws and regulations controlling in any foreign country. If the currency conversion shall be required in connection with the payments of royalties or other amounts hereunder, the conversion shall be made by using the exchange rate prevailing at Bank of America, Boston, on the last business day of the calendar quarterly reporting period to which such payments relate.

E. Payment of royalties specified in this Article shall be made by Licensee to CMCC within sixty (60) days after March 31, June 30, September 30 and December 31 each year during the Term of this Agreement covering the quantity of Licensed Products sold by Licensee during the preceding calendar quarter. The last such payment shall be made

within sixty (60) days after termination of this Agreement. Any payments due to CMCC pursuant to this Agreement shall, if overdue, bear interest until payment at a per annum rate of [***], on the due date; provided that such per annum rate shall not exceed [***] percent ([***]%). The payment of such interest shall not foreclose CMCC from exercising any other rights it may have as a consequence of the lateness of any payment.

ARTICLE V. REPORTS, RECORDS AND RELATED MATTERS

A. Licensee shall keep, and shall require its Affiliates and Sublicensees to keep, full, true and accurate books and records, including books of account in accordance with generally accepted accounting principles, in sufficient detail to enable CMCC to determine Licensee's compliance with this Agreement, including diligence with respect to development, and the royalty and other amounts payable to CMCC under this Agreement. Said books and records, including books of account, shall be kept at Licensee's principal place of business or the principal place of business of the appropriate division of Licensee to which this Agreement relates. Said books and the supporting data shall be retained for at least three (3) years following the end of the calendar year to which they pertain.

B. CMCC shall have the right to inspect and audit, on ten (10) days notice, the books described above from time to time to verify the reports provided for herein or compliance in other respects with this Agreement. CMCC, or an independent public accounting firm reasonably acceptable to Licensee, shall perform such inspection and auditing, at CMCC's expense, during Licensee's regular business hours. CMCC may have such books inspected at least once in any twelve (12) month period or more frequently as needed if CMCC has sufficient cause. Pursuant to such audit, in the event there is a discrepancy of amounts owed to CMCC of greater than [***] percent ([***]%), then Licensee shall pay all expenses of such audit.

C. Until the later of First Commercial Sale of a Licensed Product or the last development milestone, Licensee shall provide to CMCC, on an annual basis, reasonable detail regarding the activities of Licensee and Licensee's Affiliates and Sublicensees relative to

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achieving the objectives set forth in the Ex Vivo Development Plan and In Vivo Development Plan in a timely manner, including but not limited to, reports of financial expenditures to achieve said objectives; research and development activities; names, addresses and actions of all Sublicensees and Affiliates; the progress of obtaining regulatory approvals, with appropriate documentation (including, without limitation, applications, reports, and planning documents submitted to the Food and Drug Administration); strategic alliances and manufacturing, sublicensing and marketing efforts. All reports and documentation provided to CMCC under this Paragraph C shall be deemed to be Licensee's Confidential Information and CMCC agrees to handle such Licensee Confidential Information as it would handle its own confidential information.

D. After First Commercial Sale, within sixty (60) days after the end of each calendar quarter, Licensee shall deliver to CMCC, at Licensee's expense, true and accurate reports for the said preceding quarter, giving such particulars of the business conducted by Licensee, its Affiliates and its Sublicensees as shall be pertinent to CMCC determining compliance with this Agreement, including a royalty accounting hereunder, and to verify Licensee's activities with respect to achieving the objectives of the Development Plan described in Article III above. These reports shall, at CMCC's request, be provided by Licensee in an electronic or other format compatible with CMCC's data processing and/or license management systems. Reports shall include at least the following:

1. Number of Licensed Products and Licensed Processes manufactured and sold by Licensee and Affiliates.
2. Number of Licensed Products and Licensed Processes manufactured and sold to Children's Hospital Boston.
3. Total Net Sales for Licensed Products and Licensed Processes sold, by country.
4. Accounting for all Licensed Products and Licensed Processes sold.
5. Applicable deductions.
6. Total royalties payable to CMCC.
7. Names and addresses of all Sublicensees of Licensee.

8. Payments received by Licensee from Sublicensees that are related to a sublicense hereunder.

9. Licensed Products manufactured and sold to the U.S. Government, segregating those sold at a profit from those sold at cost in light of any royalty-free, nonexclusive license that may heretofore have been granted to the U.S. Government.

10. Royalties received from Sublicensees on Licensed Products.

11. Summary of research progress and results under the ZON IND, including copies of periodic reports to IRBs involved in for continuing review and approval of clinical trials.

E. On or before the one hundred eightieth (180th) day following the close of Licensee's fiscal year, Licensee shall provide CMCC with Licensee's certified financial statements for the preceding fiscal year, including balance sheets, income statements, cash flow statements, and any management letter.

F. Licensee acknowledges that policies of CMCC, MGH, Harvard Medical School and affiliated organizations, relating to, *inter alia*, conflicts of interest and intellectual property, may affect certain direct and indirect arrangements between inventors and Licensee or related organizations. During the Term of this Agreement, Licensee shall use commercially reasonable efforts to notify CMCC in writing at least 30 days before Licensee, or any Affiliate of Licensee, enters into any agreement other than this Agreement with or involving the inventor(s) of the Patent Rights, or their family, relatives or members or staff of their laboratories, whether relating to sponsored research, consulting, board membership, securities, or otherwise. Licensee's notice to CMCC shall include a detailed description of all proposed terms and conditions. Licensee shall not enter into such an agreement if it would violate such policies unless the terms and conditions of the agreement have been duly approved by CMCC pursuant to such policies.

ARTICLE VI. PATENT PROSECUTION

A. CMCC shall apply for, seek prompt issuance of, and maintain during the term of this Agreement the Patent Rights set forth in Appendix 1. The specifications of any such patent application and any patent issuing thereon shall state, to the extent applicable,

"This invention was made with government support under [contract] awarded by [Federal agency]. The government has certain rights in this invention." The prosecution, filing and maintenance of all Patent Rights applications and patents shall be the primary responsibility of CMCC. CMCC shall select outside patent counsel reasonably acceptable to Licensee to conduct such Patent Rights' activities, and to prosecute, file and maintain such Patent Rights in those countries as Licensee shall reasonably specify. CMCC and Licensee agree that Licensee will be copied on all patent correspondence and allowed direct interaction with CMCC's patent counsel regarding such patent prosecution, filing and maintenance. Licensee shall have reasonable opportunities to provide recommendations to CMCC and shall cooperate with CMCC in the preparation, filing, prosecution and maintenance of the Patent Rights. CMCC and its outside patent counsel will permit Licensee and its patent counsel to prepare draft patent applications, draft responses to patent office communications and office actions, and other draft documents pertaining to such Patent Rights' activities, which shall be submitted to CMCC and its outside patent counsel for review and consideration. Licensee's recommendations will not be unreasonably denied, however CMCC reserves the sole right to make all final decisions with respect to the preparation, filing, prosecution and maintenance of such patent applications and patents.

B. Licensee shall reimburse CMCC for all patent costs, past, present and future incurred by CMCC for the preparation, filing, prosecution and maintenance of patents underlying the Patent Rights. Outstanding uninvoiced patent costs are currently approximately $42,000 (forty two thousand) dollars. Licensee shall pay such current costs within ten (10) days of the Effective Date of this Agreement. Upon request of CMCC, and only upon such CMCC request, Licensee agrees to have CMCC's patent counsel directly bill Licensee and Licensee shall directly pay such invoices in compliance with such counsel's customary business terms, but in any event within thirty (30) days. If Licensee elects to no longer pay the expenses of a patent application or patent included within Patent Rights, Licensee shall notify CMCC not less than sixty (60) days prior to such action and shall thereby surrender its rights under such patent or patent application. Such notice shall not relieve Licensee from responsibility to reimburse CMCC for patent-related expenses incurred prior to the expiration of the (60)-day notice period (or such longer period specified in Licensee's notice). CMCC shall then be free to license its rights to that patent or patent application to any other party on any other terms.

C. In the event CMCC elects, in its sole discretion, not to pursue, maintain or retain a particular Patent Right licensed to Licensee hereunder, then CMCC shall so notify Licensee in a timely manner and, subject to the rights of the United States government, CMCC will allow Licensee to assume the filing, prosecution and/or maintenance of such application or patent on such economic and other terms as the parties mutually agree. Licensee may elect to continue to pursue, maintain or retain such Patent Right. In such event, CMCC shall provide to Licensee any authorization necessary to permit Licensee to pursue, maintain and/or retain such Patent Right.

ARTICLE VII. INFRINGEMENT

A. Licensee and CMCC shall each inform the other promptly in writing of any alleged infringement by a third party of the Patent Rights in the Field of Use and of any available evidence thereof.

B. During the Term of this Agreement, CMCC shall have the first right, but shall not be obligated, to prosecute any infringement of the Patent Rights. In the event that CMCC desires to exercise its right to prosecute such infringement, it shall provide written notice thereof to Licensee, and Licensee shall have thirty (30) days from receipt of such notice from CMCC to notify CMCC of its election to join in the action brought by CMCC.

1. If Licensee does not elect to join an action brought by CMCC pursuant to this Article VII, Section B within the 30-day period described above, and is not required to join such action, the total cost of any such infringement action commenced or defended solely by CMCC shall be borne by CMCC and CMCC shall be entitled to retain all recovery of damages from such action. CMCC shall control such action using counsel selected by CMCC.

2. If Licensee does not elect to join an action brought by CMCC pursuant to this Article VII, Section B within the 30-day period described above, but is required to join such action, then each Party shall bear its own costs and expenses of such action, and CMCC shall control such action subject to Licensee’s reasonable input using counsel selected by CMCC. Any recovery of damages by the Parties for such action shall be applied first in satisfaction of any expenses and legal fees of CMCC and Licensee relating to such suit. The balance remaining from any such recovery shall be split

[***] percent ([***]%) to Licensee and [***] percent ([***]%) to CMCC. For clarity, no payments under Article IV shall be owed by Licensee with respect to any recovery of damages retained by Licensee pursuant to this Section.

3. If Licensee does elect to join an action brought by CMCC pursuant to this Article VIII, Section B within the 30-day period described above, then the total cost of any such action shall be borne by Licensee, Licensee shall control such action subject to CMCC's reasonable input using counsel selected by Licensee and reasonably acceptable to CMCC. If, however, Licensee fails to diligently and vigorously pursue the prosecution of such action, then CMCC may notify Licensee in writing specifying in reasonable detail the nature of such failure, and if Licensee does not cure such failure within a timely period (not to exceed ninety (90) days), then CMCC may elect by written notice to control such action thereafter or until such time as Licensee is able to show, to CMCC's reasonable discretion, that Licensee is then able to pursue such action diligently and vigorously. Any recovery of damages by the Parties for such suit or any settlement shall be applied first in satisfaction of any expenses and legal fees of CMCC and Licensee relating to such suit. The balance remaining from any such recovery shall be split [***] percent ([***]%) to Licensee and [***] percent ([***]%) to CMCC. For clarity, no payments under Article IV shall be owed by Licensee with respect to any recovery of damages retained by Licensee pursuant to this Section.

4. Notwithstanding the foregoing or the remainder of this Article VII, at any time either Party, due to potential conflicts of interest, may elect to join an action brought by the other under this Article VII, and to do so independently, at its own cost, with its own counsel, and which counsel shall be subject solely to its own control, provided that the Party in control of such action under this Article VII shall remain in control of such action and such other Party shall have the right to participate as provided in this paragraph.

C. If within ninety (90) days after having been notified of any alleged infringement, CMCC shall have been unsuccessful in persuading the alleged infringer to desist and shall not

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have brought and shall not be diligently prosecuting an infringement action, or if CMCC shall notify Licensee of its intention not to bring suit against any alleged infringer then, Licensee shall have the right, but shall not be obligated, to prosecute at its own expense any infringement of the Patent Rights, provided, however, that such right to bring such an infringement action shall remain in effect only for so long as the license granted hereunder remains exclusive with respect to such infringement. Licensee shall control such action subject to CMCC's reasonable input using counsel selected by Licensee. No settlement, consent judgment or other voluntary final disposition of the suit may be entered into without the consent of CMCC, which consent shall not be unreasonably withheld or delayed. Licensee shall indemnify CMCC against any order for costs that may be made against CMCC in such proceedings.

D. In the event Licensee shall undertake the enforcement and/or defense of the Patent Rights pursuant to Paragraph C above, any recovery of damages by Licensee for such suit or by settlement shall be applied first in satisfaction of any unreimbursed expenses and legal fees of CMCC and Licensee relating to such suit. The balance remaining from any such recovery shall be split [***] percent ([***]%) to Licensee and [***] percent ([***]%) to CMCC. For clarity, no payments under Article IV shall be owed by Licensee with respect to any recovery of damages retained by Licensee pursuant to this Section.

E. In the event that a declaratory judgment action alleging invalidity or non-infringement of any of the Patent Rights shall be brought against Licensee, CMCC, at its option, shall have the right, within thirty (30) days after commencement of such action, to intervene and participate in the defense of the action at its own expense. In the event that a declaratory judgment action alleging invalidity or non-infringement of any of the Patent Rights shall be brought against CMCC, Licensee, at its option, shall have the right, within thirty (30) days after commencement of such action, to intervene and participate in the defense of the action at its own expense.

F. In any infringement suit which either party may institute or join to enforce the Patent Rights pursuant to this Agreement, the other party hereto shall cooperate in all reasonable respects (including without limitation joining any such suit or any other action

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or proceeding described above at the reasonable request of the other party or if required by law to initiate or maintain same), and, to the extent reasonably possible, have its employees testify when requested and make available relevant records, papers, information, samples, specimens, and the like.

G. Licensee shall have the sole right subject to the terms and conditions hereof to sublicense any alleged infringer for future use of the Patent Rights to the extent licensed by this Agreement. Any upfront fees paid to Licensee as part of such a sublicense shall be shared between Licensee and CMCC as Non-Royalty Sublicensing Income.

ARTICLE VIII. UNIFORM INDEMNIFICATION AND INSURANCE PROVISIONS

A. Licensee shall indemnify, defend and hold harmless CMCC and MGH, their corporate affiliates, current or future directors, trustees, officers, faculty, medical and professional staff, employees, students and agents and their respective successors, heirs and assigns (the "Indemnitees"), 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 Indemnitees or any one of them in connection with any claims, suits, actions, demands or judgments arising out of any theory of product liability (including, but not limited to, actions in the form of tort, warranty, or strict liability) concerning any product, process or service made, used or sold pursuant to any right or license granted under this Agreement.

B. Licensee's indemnification under Article VIII, Paragraph A above shall not apply to any liability, damage, loss or expense to the extent that it is directly attributable to the negligent activities, reckless misconduct or intentional misconduct of the Indemnitees.

C. Licensee agrees, at its own expense, to provide attorneys reasonably acceptable to CMCC and MGH to defend against any actions brought or filed against any party indemnified hereunder with respect to the subject of indemnity contained herein, whether or not such actions are rightfully brought.

D. Beginning at the time as any such Licensed Product is being commercially distributed or sold (other than for the purpose of obtaining regulatory approvals) by Licensee or by a Sublicensee, Affiliate or agent of Licensee, Licensee shall, at its sole cost and expense,

procure and maintain commercial general liability insurance in amounts not less than $[***] per incident and $[***] annual aggregate and naming the Indemnitees and HHMI Indemnitees, as defined below, as additional insureds. Such commercial general liability insurance shall provide (i) product liability coverage (and, if not provided for under such insurance, shall be procured and maintained separately in amounts as set forth above) and (ii) contractual liability coverage for Licensee's indemnification under Article VIII, Paragraphs A through C of this Agreement. If Licensee elects to self-insure all or part of the limits described above (including deductibles or retentions which are in excess of $[***] annual aggregate), such self-insurance program must be acceptable to CMCC and the Risk Management Foundation of the Harvard Medical Institutions, Inc. The minimum amount of insurance coverage required under this Article VIII, Paragraph D, shall not be construed to create a limit of Licensee's liability with respect to its indemnification under Article VIII, Paragraphs A through C of this Agreement.

E. Licensee shall provide CMCC with written evidence of such insurance upon request of CMCC. Licensee shall provide CMCC with written notice at least fifteen (15) days prior to the cancellation, non-renewal or material change in such insurance. Notwithstanding any other term of this Agreement, if Licensee does not obtain replacement insurance providing comparable coverage within such fifteen (15) day period, CMCC shall have the right to terminate this Agreement effective at the end of such fifteen (15) day period without notice of any additional waiting periods.

F. Licensee shall maintain such commercial general liability insurance during (i) the period that any such product, process or service is being commercially distributed or sold (other than for the purpose of obtaining regulatory approvals) by Licensee or by a Sublicensee, Affiliate or agent of Licensee and (ii) a reasonable period after the period referred to above, which in no event shall be less than [***].

G. Howard Hughes Medical Institute, and its trustees, officers, employees, and agents (collectively, "HHMI Indemnitees"), will be indemnified, defended by counsel acceptable to HHMI, and held harmless by the Licensee, Sublicensee, or other contracting party from and against any claim, liability, cost, expense, damage, deficiency, loss, or

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obligation, of any kind or nature (including, without limitation, reasonable attorneys' fees and other costs and expenses of defense) (collectively, "Claims"), based upon, arising out of, or otherwise relating to this Agreement, including without limitation any cause of action relating to product liability. The previous sentence will not apply to any Claim that is determined with finality by a court of competent jurisdiction to result solely from the gross negligence or willful misconduct of an HHMI Indemnitee.

H. Licensee agrees not to settle any Claim against an HHMI Indemnitee without HHMI's written consent, where (a) such settlement would include any admission of liability on the part of any HHMI Indemnitee, (b) such settlement would impose any restriction on any HHMI Indemnitee's conduct of any of its activities, or (c) such settlement would not include an unconditional release of all HHMI Indemnitees from all liability for claims that are the subject matter of the settled Claim.

I. The provisions of this Article VIII shall survive expiration or termination of this Agreement.

J. CMCC FOR ITSELF AND ON BEHALF OF MGH MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ANY EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR ANY EXPRESS OR IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, OR WARRANTY OF NON-INFRINGEMENT, WITH RESPECT TO ANY MATTER WITHIN THE SCOPE OF THIS AGREEMENT, INCLUDING WITHOUT LIMITATION ANY WARRANTY WITH RESPECT TO THE PATENT RIGHTS, LICENSED PRODUCTS, OR ANY PATENT, TRADEMARK, SOFTWARE, TRADE SECRET, TANGIBLE RESEARCH PROPERTY, INFORMATION OR DATA LICENSED OR OTHERWISE PROVIDED TO LICENSEE HEREUNDER, AND HEREBY DISCLAIMS THE SAME.

ARTICLE IX. COMPLIANCE WITH LAWS; EXPORT CONTROLS

Licensee shall comply with all applicable laws and regulations, including, without limitation, statutes and regulations affecting drug testing, development, marketing and distribution; laws and implementing regulations of the Department of Commerce governing intellectual property in federally-funded inventions; and Export Administration Regulations of the United States Department of Commerce issued pursuant to the Export Administration Act of 1979 (50 App. U.S.C. §2401 et. seq.). Licensee

understands and acknowledges that transfer of certain technical data, computer software, laboratory prototypes and other commodities is subject to United States laws and regulations controlling their export, some of which prohibit or require a license for the export of certain types of technical data, to certain specified countries. CMCC neither represents that a license shall not be required, nor that if required, it shall be issued. Licensee hereby agrees and gives written assurance that it will comply with all United States laws and regulations, and any applicable similar laws and regulations of any other country, controlling the export of commodities and technical data, that it will be solely responsible for any violation of such by Licensee and/or its Affiliates and/or Sublicensees, and that it will defend and hold CMCC, its affiliates and their officers, directors, employees, agents, and medical staff harmless in the event of any legal action of any nature occasioned by such violation, and any action by any governmental agency or authority, or any other party, relating to any asserted illegality or regulatory violation in the development, production, approval, marketing, sale, storage, manufacture, distribution, export or commercialization of Licensed Products or Licensed Processes under this Agreement.

ARTICLE X. NON-USE OF NAMES

A. Licensee represents and agrees that it will not use the name, names, logos or trademarks of CMCC or MGH or any of their corporate affiliates, nor the name or photograph or other depiction of any employee or member of the staff of CMCC or MGH or such affiliates, nor any adaptation of any of the foregoing, in any advertising, promotional, or sales literature without, in each case, prior written consent from CMCC or MGH as appropriate and from the individual staff member, employee, or student if such individual's name, photograph or depiction is used; provided, however, that such prior written consent from CMCC or MGH shall not be required with respect to use of names of CMCC or MGH personnel (including Dr. Leonard Zon) if and to the extent that Licensee has entered into a contractual relationship with any such CMCC or MGH personnel and such agreement provides such consent and such agreement is consistent with CMCC, MGH and HHMI (as appropriate) policies. Notwithstanding the above, Licensee may state that it is licensed by CMCC and on the behalf of MGH under one or more patents and/or applications consistent with this Agreement, and Licensee may comply with disclosure requirements of all applicable laws relating to its business, including United States and state security laws. In addition, Licensee may refer to publications by employees of CMCC or MGH in the scientific literature.

B. Licensee acknowledges that under HHMI policy, Licensee may not use the name of HHMI or of any HHMI employee (including Dr. Leonard Zon) in a manner that reasonably could constitute an endorsement of a commercial product or service; but that use for other purposes, even if commercially motivated, is permitted provided that (1) the use is limited to accurately reporting factual events or occurrences, and (2) any reference to the name of HHMI or any HHMI employees in press releases or similar materials intended for public release is approved by HHMI in advance.

ARTICLE XI. ASSIGNMENT

Except as otherwise provided herein, this Agreement is not assignable or delegable, in whole or in part, by a party without the prior written consent of the other party acting through an authorized designee, and any purported assignment otherwise shall be void and of no effect. Notwithstanding the foregoing, (A) either party may assign this Agreement to an Affiliate so long as such Affiliate shall agree in writing to be bound by the terms and conditions hereof, and such party shall notify the other party in writing of any such assignment and provide a copy of all assignment documents to such other party within thirty (30) days of execution of such assignment; or (B) in the event Licensee merges or consolidates with another entity, is acquired by another entity, or sells all or substantially all of its assets to another entity, Licensee may assign its rights and obligations hereunder to the surviving or acquiring entity without the consent of CMCC if: (i) Licensee is not then in material breach of this Agreement; (ii) the proposed assignee has a net worth at least equivalent to the net worth Licensee had as of the date of this Agreement; (iii) Licensee provides written notice of the assignment to CMCC, together with documentation reasonably satisfactory to CMCC sufficient to demonstrate the requirements set forth in subparagraph (ii) above, at least ten (10) days prior to the effective date of the assignment; and (iv) CMCC receives from the assignee, in writing, at least thirty (30) days after the effective date of the assignment: (a) reaffirmation of the terms of this Agreement; (b) an agreement to be bound by the terms of this Agreement; (c) an agreement to perform the obligations of Licensee under this Agreement, and (d) representations to the effect that assignee complies with subparagraph (ii) above.

ARTICLE XII. DISPUTE RESOLUTION AND ARBITRATION

A. Any and all claims, disputes or controversies arising under, out of, or in connection with this Agreement, which have not been resolved by good faith negotiations between the parties shall be resolved by final and binding arbitration in Boston, Massachusetts, in accordance with the rules then obtaining applicable to the appointment of a single arbitrator of the American Arbitration Association ("AAA"). All expenses and costs of the arbitrators and the arbitration in connection therewith will be shared equally, except that each party will bear the costs of its prosecution and defense, including without limitation attorneys fees and the production of witnesses and other evidence. Any award rendered in such arbitration shall be final and may be enforced by either party.

B. Notwithstanding the foregoing, nothing in this Agreement shall be construed to waive any rights or timely performance of any obligations existing under this Agreement, including without limitation Licensee's obligations to make royalty and other payments, and also, unless CMCC has terminated the License, Licensee's obligation to continue due diligence and development obligations. Notwithstanding any other provision of this Agreement, Licensee agrees that it shall not withhold or offset such payments, and agrees that Licensee's sole remedy for alleged breaches by CMCC is pursuant to this Article XII.

C. Notwithstanding the foregoing, no dispute affecting the rights or property of HHMI shall be subject to the arbitration provisions set forth above.

ARTICLE XIII. TERM AND TERMINATION

A. The Term of this Agreement shall begin on the Effective Date and terminate on the last to expire of the Patent Rights; provided that Licensee's obligation to make royalty payments hereunder shall expire on a jurisdiction-by-jurisdiction basis, with respect to each jurisdiction on the expiry of the last to expire Patent Rights in existence within such jurisdiction.

B. CMCC may terminate this Agreement immediately upon the bankruptcy, insolvency, liquidation, dissolution or cessation of operations of Licensee; or the filing of any voluntary petition for bankruptcy, dissolution, liquidation or winding-up of the affairs of Licensee; or any assignment by Licensee for the benefit of creditors; or the filing of any

involuntary petition for bankruptcy, dissolution, liquidation or winding-up of the affairs of Licensee which is not dismissed within ninety (90) days of the date on which it is filed or commenced; or upon any final judicial or administrative determination that this Agreement violates, or if continued would violate, in a substantial manner, any provision of the Federal Internal Revenue Code, applicable rights of the United States or obligations of CMCC under Title 15 of the United States Code, or other Federal or State laws applicable to CMCC; or in the circumstances providing for immediate termination subject to the prior period of cure described in Article III of this Agreement.

C. CMCC may terminate this Agreement upon thirty (30) days prior written notice in the event of Licensee's failure to pay to CMCC royalties, or any other payments under this Agreement and / or past or ongoing patent costs due and payable hereunder in a timely manner, unless Licensee shall make all such payments to CMCC within said thirty (30) day period; provided, however, if Licensee makes any payment which is the subject of a bona fide dispute, and if such dispute is resolved in Licensee's favor pursuant to Article XII, then CMCC shall credit or refund (if there are no future payments owed by Licensee hereunder against which such credit may be applied) the amount of such disputed payment made by Licensee pending resolution of such dispute. Unless Licensee shall have made such payment, then notwithstanding Article XII of this Agreement, upon the expiration of the thirty (30) day period, if Licensee shall not have made all such payments to CMCC, the rights, privileges and licenses granted hereunder shall terminate without further action by CMCC.

D. Except as otherwise provided in Paragraphs B and C above, in the event that Licensee shall materially default in the performance of any obligations under this Agreement, and the default has not been remedied to CMCC's reasonable satisfaction:

1. within ninety days (90) after the date of notice in writing of such material default for any material default other than that of diligence failure under Article III, CMCC may by written notice to Licensee terminate this Agreement in its entirety, where such termination shall be effective immediately or upon such date as CMCC, in its sole discretion, shall designate in such notice; or

2. within one hundred eighty days (180) after the date of notice in writing of such material default for any default of diligence failure under Article III, CMCC may by written notice to Licensee terminate the license granted hereunder in the field (e.g.,

In Vivo, Ex Vivo) that is the subject of such default, where such termination shall be effective immediately or upon such date as CMCC, in its sole discretion, shall designate in such notice.

E. Licensee shall have the right to terminate this Agreement at any time upon six (6) months prior written notice to CMCC, upon payment by Licensee of all amounts due CMCC through the effective date of termination.

F. Upon termination of this Agreement for any reason, nothing herein shall be construed to release either party from any obligation that matured prior to the effective date of such termination. The following provisions shall survive the expiration or termination of this Agreement: Articles VII Insurance and Indemnification, IX Compliance with Laws: Export Controls, X Non-Use of Names and XI Assignment.

G. If Licensee or CMCC terminates this Agreement for any reason prior to the second anniversary from the Effective Date, then the following set forth in this Article XIII.G shall apply. Licensee shall transfer and assign to CMCC ownership of the ZON IND, and Licensee shall provide to CMCC or allow CMCC access to all submissions and communications with each regulatory agency in connection with the ZON IND (such as the FDA or equivalent). If such transfer and assignment is not permitted under the laws of any applicable jurisdiction, Licensee shall take such other reasonable and permitted actions with respect to the ZON IND as may be reasonably requested by CMCC. Licensee shall make available to CMCC, for purposes of its evaluation of the future viability of the technology, a summary of such results together with copies of any government-mandated reports, such as FDA safety reports. Licensee shall also provide to CMCC and Licensee shall grant to CMCC a non-exclusive, perpetual, irrevocable, royalty-free, sub-licensable worldwide license to Licensee’s right, title and interest in and to any and all of the data and results from any such clinical or other testing related to the ZON IND for CMCC’s use for any purpose.

H. Upon any termination of this Agreement by Licensee or CMCC at any point after the second anniversary from the Effective Date, then the following set forth in this Article XIII.H shall apply. Licensee shall transfer and assign to CMCC ownership of the ZON IND, and Licensee shall provide to CMCC or allow CMCC access to all submissions and communications with each regulatory agency in connection with the ZON IND (such as the FDA or equivalent). If such transfer and assignment is not

permitted under the laws of any applicable jurisdiction, Licensee shall take such other reasonable and permitted actions with respect to the ZON IND as may be reasonably requested by CMCC The Parties agree to enter an agreement and negotiate in good faith for a license to Licensee's right, title and interest in and to (i) all pre-clinical and clinical data (including data relating to manufacture and formulation) generated by or on behalf of the Licensee relating to each and every Licensed Product or Licensed Process that had entered into human clinical trials before the effective date of termination, and (ii) any and all of the data and results from any such clinical or other testing related to the ZON IND, for CMCC's use for any purpose, such license to be on commercially reasonable terms (including royalties and other payments to Licensee) mutually agreed to by the parties.

ARTICLE XIV. PAYMENTS, NOTICES, AND OTHER COMMUNICATIONS

All notices, reports and/or other communications made in accordance with this Agreement shall be sufficiently made or given if delivered by hand, delivered by facsimile (with mechanical confirmation of transmission), or sent by overnight receipted mail, postage prepaid, or by reasonable, customary and reliable commercial overnight carrier in general usage, and addressed as follows:

In the case of CMCC:

Director

Technology and Innovation Development Office

RE: Agr. No. 7545

Children's Hospital Boston

300 Longwood Avenue

Boston, MA 02115

Payments shall be transmitted by reliable means to the same addressee, payable to Children's Hospital Boston. Wire transfers for CMCC can be made directly to:

Bank Name:	[***]
ABA#:	[***]
Account name:	[***]
Bank Account Number:	[***]
Attention:	[***]
Reference:	[***]

In the case of Licensee:

Chief Financial Officer

Fate Therapeutics, Inc.

10931 N Torrey Pines Rd, Suite 107

La Jolla, CA 92037

or such other address as either party shall notify the other in writing.

NOTICE SHALL BE EFFECTIVE UPON RECEIPT.

ARTICLE XV. GENERAL PROVISIONS

A. All rights and remedies hereunder will be cumulative and not alternative. This Agreement shall be construed and governed by the laws of the Commonwealth of Massachusetts, without reference to its choice of law principles, except that questions affecting the construction and effect of any patent right shall be determined by the law of the country in which such patent right arises.

B. To the best knowledge of CMCC that as of the Effective Date of this Agreement, (i) CMCC and MGH exclusively own the patents and applications included within the Patent

* Confidential Information, indicated by [***], has been omitted from this filing and filed separately with the Securities and Exchange Commission

Rights; (ii) CMCC has the power and authority to grant the licenses provided for herein to Licensee, and that it has not earlier granted, or assumed any obligation to grant, any rights in the Patent Rights to any third party that would conflict with the rights granted to Licensee herein; and (iii) to CMCC's knowledge, as of the Effective Date of this Agreement, there is no infringement of the Patent Rights by any third party.

C. IN NO EVENT SHALL EITHER PARTY OR ITS AFFILIATES BE LIABLE HEREUNDER TO THE OTHER PARTY, ITS AFFILIATES OR ANY OTHER PERSON OR ENTITY FOR SPECIAL, INCIDENTAL, CONSEQUENTIAL, EXEMPLARY OR OTHER INDIRECT DAMAGES (INCLUDING LOSS OF PROFITS OR LOSS OF USE DAMAGES) ARISING OUT OF THIS AGREEMENT, EVEN IF SUCH PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES OR LOSSES.

D. This Agreement may be amended only by written agreement signed by the parties.

E. It is expressly agreed by the parties hereto that CMCC and Licensee are independent contractors and nothing in this Agreement is intended to create an employer relationship, joint venture, or partnership between the parties. No party has the authority to bind the other.

F. HHMI and MGH are not parties to this Agreement and have no liability to any Licensee, Affiliates, or Sublicensee, or user of anything covered by this Agreement, but HHMI and MGH are intended third-party beneficiaries of this Agreement and certain of its provisions are for the benefit of HHMI and/or MGH and are enforceable by HHMI and or MGH in its own name.

G. This Agreement constitutes the entire agreement between the parties with respect to the subject matter hereof and supersedes all proposals, representations, negotiations, agreements and other communications between the parties, whether written or oral, with respect to the subject matter hereof. Where inconsistent with the terms of any contemporaneous related agreements (such as sponsored research agreements), terms in this Agreement shall control.

H. If any provisions of this Agreement shall be held to be invalid, illegal or unenforceable, the provision shall be considered severed from this Agreement and the validity, legality and enforceability of the remaining provisions of this Agreement shall not be impaired thereby. The Parties shall make a good faith effort to replace any invalid or unenforceable provision with a valid and enforceable one such that the objectives contemplated by the Parties when entering this Agreement may be realized.

I. This Agreement may be executed in any number of counterparts, each of which shall be deemed an original as against the party whose signature appears thereon, but all of which taken together shall constitute but one and the same instrument.

J. The failure of either party to assert a right to which it is entitled, or to insist upon compliance with any term or condition of this Agreement, shall not constitute a waiver of that right or excuse a similar subsequent failure to perform any such term or condition by the other party.

K. Licensee agrees to mark any Licensed Products sold in the United States with all applicable United States patent numbers. All Licensed Products shipped to or sold in other countries shall be marked in such a manner as to conform with the patent laws and practices of the country of manufacture or sale.

L. Each party hereto agrees to execute, acknowledge and deliver such further instruments as may be necessary or appropriate to carry out the purposes and intent of this Agreement.

M. The paragraph headings contained in this Agreement are for reference purposes only and shall not in any way affect the meaning or interpretation of this Agreement.

N. The signatories below each warrant that he or she is duly authorized to execute this Agreement.

O. The parties agree that during the course of this Agreement, each may come into possession of confidential and/or proprietary materials or information through intentional or accidental disclosure by the other. The parties agree to preserve the confidentiality of all such information known to be confidential or proprietary, unless the disclosing party consents in writing, or unless the confidentiality of the material is lost through other parties not under obligations to preserve its confidentiality.

[*remainder or this page intentionally left blank*]

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date last written below.

CHILDREN'S MEDICAL CENTER CORPORATION	FATE THERAPEUTICS, INC.
By: /s/ Erik Halvorsen	By: /s/ Scott Wolchko
Name: Erik Halvorsen Ph.D.	Name: Scott Wolchko
Title: Director of Technology and Business Development	Title: Chief Financial Officer
Date: 5/13/09	Date: 13 May 2009

APPENDIX 1

Patent Rights

Patent Family #1:

[***]

Patent Family #2:

[***]

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* Confidential Information, indicated by [***], has been omitted from this filing and filed separately with the Securities and Exchange Commission

APPENDIX 2

Ex Vivo Development Plan

[***]

* Confidential Information, indicated by [***], has been omitted from this filing and filed separately with the Securities and Exchange Commission

APPENDIX 3

In Vivo Development Plan

[***]

* Confidential Information, indicated by [***], has been omitted from this filing and filed separately with the Securities and Exchange Commission

APPENDIX 4

[***]

* Confidential Information, indicated by [***], has been omitted from this filing and filed separately with the Securities and Exchange Commission

EXHIBIT 10.10

CERTAIN CONFIDENTIAL PORTIONS OF THIS EXHIBIT WERE OMITTED AND REPLACED WITH "[***]". A COMPLETE VERSION OF THIS EXHIBIT HAS BEEN FILED SEPARATELY WITH THE SECRETARY OF THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO AN APPLICATION REQUESTING CONFIDENTIAL TREATMENT UNDER RULE 406 OF THE SECURITIES ACT OF 1933.

EXCLUSIVE LICENSE AGREEMENT

This Exclusive License Agreement (the "Agreement") between THE BOARD OF TRUSTEES OF THE LELAND STANFORD JUNIOR UNIVERSITY ("Stanford"), an institution of higher education having powers under the laws of the State of California, and FATE THERAPEUTICS, INC. ("Fate"), a corporation having a principal place of business at 3535 General Atomics Court, Suite 200, San Diego, CA 92121, is effective on the 2nd day of May, 2013 ("Effective Date").

1 BACKGROUND

Stanford has an assignment of an invention "Wnt Compositions and Methods of Use Thereof" that was invented in the laboratory of Dr. Christopher Garcia, a Howard Hughes Medical Institute ("HHMI") medical investigator, and is described in Stanford Docket [***]. The invention was made in the course of research supported by HHMI. Stanford wants to have the invention perfected and marketed as soon as possible so that resulting products may be available for public use and benefit.

2 DEFINITIONS

2.1 "Affiliates" means any person, corporation, or other business entity which controls, is controlled by, or is under common control with Fate; and for this purpose, 'control' of a corporation means the direct or indirect ownership of at least fifty percent (50%) of its voting stock, and "control" of any other business entity means the direct or indirect ownership of a fifty percent (50%) or greater interest in the income of such entity.

2.2 "Confidential Information" means any and all reports and records provided by Fate to Stanford in accordance with this Agreement, including reports under Sections 6.3, 8.1, and 8.3, and records under Section 8.4. Information shall not be considered confidential to the extent that either party can establish by competent proof that it:

(a) Is publicly disclosed through no fault of the receiving party, either before or after it becomes known to the receiving party; or

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* Confidential Information, indicated by [***], has been omitted from this filing and filed separately with the Securities and Exchange Commission.

(b) Was known to the receiving party without obligation of confidentiality prior to the date of this Agreement, which knowledge was acquired independently and not from the disclosing party (including such party's employees, consultants or agents); or

(c) Is subsequently disclosed to the receiving party without obligation of confidentiality in good faith by a third party who is not under any obligation to maintain the confidentiality of such information, and without breach of this Agreement by a receiving party; or

(d) Has been published by a third party not in breach of any obligation of confidentiality; or

(e) Was independently developed by the receiving party without the use of or reliance on the Confidential Information of the disclosing party.

2.3 "Customer" means any individual or entity that receives Licensed Products for their own end use and not for further sale, transfer, lease, exchange or other disposition. For clarity, an Affiliate or sublicensee shall be deemed a Customer only to the extent it is an end user of the Licensed Products that are not intended for further sale, transfer, lease, exchange or other disposition.

2.4 "Exclusive" means that, subject to Articles 3 and 5, as applicable, Stanford has not and will not grant further licenses under the Licensed Patents in the Licensed Field of Use in the Licensed Territory.

2.5 "HHMI Indemnitees" means HHMI and its trustees, officers, employees, and agents.

2.6 "Licensed Field of Use" means the treatment, prevention, palliation of diseases, conditions, syndromes and maladies of humans and animals.

2.7 "Licensed Patents" means (i) Stanford's [***], and any patent applications corresponding thereto; (ii) patents issued from [***], and from divisionals and continuations of these applications and any reissues of such patents; (iii) claims of continuation-in-part applications and patents directed to subject matter specifically described in [***]; and (iv) claims of all foreign patent applications, patents, and other intellectual property which are directed to subject matter specifically described in [***].

2.8 "Licensed Product" means any device, composition, product or part of a product in the Licensed Field of Use, the manufacture, use, sale, offer for sale or import of which, but for the licenses granted herein, would infringe a Valid Claim of a Licensed Patent.

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2.9 “Licensed Territory” means worldwide.

2.10 “Net Sales” means all gross revenue actually received by Fate, its Affiliates or sublicensees from the sale of Licensed Products to Customers. Net Sales excludes the following items (but only as they pertain to the making, using, importing or selling of Licensed Products, are included in gross revenue, and are separately itemized):

(A) import, export, excise, tariff, use and sales taxes, and custom duties;

(B) costs of insurance, packing, and transportation from the place of manufacture to the customer’s premises or point of installation;

(C) costs of installation at the place of use;

(D) credit for returns, rejections, allowances, recall expenses, or trades;

(E) cash, trade or quantity discounts actually granted to Customers and retroactive price reductions applicable to sales of Licensed Products; and

(F) fees paid to distributors.

For the avoidance of doubt, transfers of a Licensed Product between any of Fate, an Affiliate or a sublicensee for sale by the transferee shall not be considered Net Sales hereunder.

If a Licensed Product is sold or used in combination with one or more products, compositions, processes or services which are not Licensed Products (hereinafter collectively, “Combination Product”), then Net Sales from such Combination Product means the gross revenue actually received for the sale to Customers, less the deductions set forth above, multiplied by a proration factor. This proration factor shall be determined as follows:

(1) If on a country-by-country basis all components of the Combination Product were sold separately, the proration factor shall be determined by the formula [A/(A+B)], where A is the average gross selling price of the Licensed Product components sold separately by Fate, its Affiliates or sublicensee, and B is the average gross selling price of such other components of the Combination Product when sold separately;

(2) If on a country-by-country basis the other component(s) other than the Licensed Product in the Combination Product were not all sold separately, the proration factor shall be determined by the formula A/C, where A is the average gross selling price of the Licensed Product sold separately by Fate, its Affiliates or sublicensee, and C is the average gross selling price of the Combination Product; or

(3) If on a country-by-country basis neither the Licensed Product nor all of the other component(s) in the Combination Product were sold separately, then the proration factor shall be determined in a consistent and equitable manner that reflects the contribution of the Licensed Product to the payments received from Net Sales of such Licensed Product as the parties shall in good faith negotiate and agree.

2.11 “Stanford Indemnitees” means Stanford and Stanford Hospitals and Clinics, and their respective trustees, officers, employees, students, and agents.

2.12 “Sublicensing Revenue” means all upfront fees and other payments received by Fate from all sublicensees in consideration of a grant of rights to the Licensed Patents by Fate to such sublicensees. The following consideration or payments received by Fate shall be excluded from the calculation of sublicensing consideration due to Stanford with respect to an applicable sublicense: (i) royalties paid by sublicensees (which will be at the Earned Royalty rate specified in Section 7.6); (ii) equity or debt at fair market value; (iii) payments to reimburse patent prosecution, defense, enforcement costs and maintenance and/or other related expenses; (iv) reimbursements for costs for research, development or commercialization activities (including payments for full time employees); and (v) milestone payments to the extent that Fate pays Stanford the milestone amounts specified in Section 7.5. To the extent that rights other than the Licensed Patents are sublicensed, the consideration received will be equitably apportioned between those Patent Rights and those other rights. In the event that Stanford disputes the apportionment of consideration, the parties agree to meet and discuss to resolve the issue.

2.13 “Valid Claim” means (a) a claim in an issued and unexpired patent included in the Licensed Patents that: (i) has not been held unenforceable, unpatentable or invalid by a decision of a court or other governmental agency of competent jurisdiction, and is not subject to appeal, (ii) has not been admitted to be invalid or unenforceable through reissue or disclaimer or otherwise, (iii) has not been lost through an interference, reexamination or reissue proceeding; or (b) a pending claim of a patent application included in the Licensed Patents that has not been pending for more than seven years or cancelled, withdrawn, abandoned or finally disallowed, without the possibility of appeal or refiling of such application.

3 GRANT

3.1 **Grant.** Subject to the terms and conditions of this Agreement, Stanford hereby grants Fate and Fate’s Affiliates a license under the Licensed Patents in the Licensed Field of Use to make, have made, use, have used, sell, have sold, offer to sell, have offered to sell, lease, have leased, import and have imported Licensed Products in the Licensed Territory.

3.2 **Exclusivity.** The license is Exclusive, including the right to sublicense under Article 4, in the Licensed Field of Use during the Term of this Agreement.

3.3 **Retained Rights.** Stanford retains the right, on behalf of itself and all other non-profit academic research institutions, to practice the Licensed Patents for any non-profit purpose, including sponsored research and collaborations. Fate agrees that, notwithstanding any other provision of this Agreement, it has no right to enforce the Licensed Patent against any such institution. Stanford and any such other

institution have the right to publish any information included in the Licensed Patents. Fate acknowledges that Stanford has granted to HHMI a perpetual, paid-up, irrevocable, worldwide, royalty-free, nonexclusive, nontransferable license to use the Licensed Patents for HHMI's research purposes, but with no right to assign or sublicense ("HHMI License"). The licenses granted are explicitly made subject to the HHMI License.

3.4 **Specific Exclusion.** Stanford does not:

(A) grant to Fate any other licenses, implied or otherwise, to any patents or other rights of Stanford other than those rights granted under the Licensed Patents, regardless of whether the patents or other rights are dominant or subordinate to any Licensed Patents, or are required to exploit any Licensed Patents;

(B) commit to Fate to bring suit against third parties for infringement, except as described in Article 14; and

(C) agree to furnish to Fate any technology or technological information or to provide Fate with any assistance.

3.5 [***].

4 SUBLICENSING

4.1 **Permitted Sublicensing.** Fate may grant sublicenses under the rights granted in Section 3.1 in the Licensed Field of Use only if Fate is actively pursuing development or commercialization of Licensed Products. Sublicenses with any exclusivity must include diligence requirements sufficient to enable Fate and sublicensee to comply with this Agreement.

4.2 **Required Sublicensing.** If Fate is unable or unwilling to serve or develop a potential market or market territory for which there is a company willing to be a sublicensee, Fate will, at Stanford's written request, negotiate in good faith a sublicense with any such sublicensee. Stanford would like licensees to address unmet needs, such as those of neglected patient populations or geographic areas, giving particular attention to improved therapeutics, diagnostics and agricultural technologies for the developing world.

4.3 Any sublicense:

(A) is subject to this Agreement;

(B) will reflect that any sublicensee will not further sublicense without prior written consent from Stanford, which consent shall not be unreasonably withheld;

(C) will prohibit sublicensee from paying royalties to an escrow or other similar account;

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(D) will expressly include the provisions of Articles 8, 9, 10, 13 and Section 20.5 for the benefit of Stanford and/or HHMI as the case may be; and

(E) will include the provisions of Section 4.4 and require the transfer of all the sublicensee's obligations to Fate, including the payment of royalties specified in the sublicense, to Stanford or its designee, if this Agreement is terminated.

4.4 **Litigation by Sublicensee.** Any sublicense must include the following clauses:

(A) In the event sublicensee brings any court action seeking to invalidate any Licensed Patent:

(1) sublicensee will [***] during the pendency of such action. Moreover, should the outcome of such action determine that any claim of a Licensed Patent challenged by the sublicensee is both valid and infringed by a Licensed Product, sublicensee will [***];

(2) sublicensee will have no right to recoup any royalties paid before or during the period challenge;

(3) any dispute regarding the validity of any Licensed Patent shall be litigated in the courts located in Santa Clara County, and the parties agree not to challenge personal jurisdiction in that forum;

(4) sublicensee shall not pay royalties into any escrow or other similar account.

(B) Sublicensee will provide written notice to Stanford at least [***] prior to bringing an action seeking to invalidate a Licensed Patent. Sublicensee will include with such written notice an identification of all prior art it believes invalidates any claim of the Licensed Patent.

4.5 **Copy of Sublicenses.** Fate will submit to Stanford a copy of each sublicense. Fate may redact those portions of such sublicense(s) that are not necessary for Stanford to determine whether Fate is in compliance with its obligations under this Agreement. Each sublicense and any information provided by Fate to Stanford under this Article 4 shall be deemed to be Confidential Information of Fate.

4.6 **Sharing of Sublicensing Revenue.** Fate will pay to Stanford:

(A) [***] percent ([***]%) of Sublicensing Revenue received by Fate from sublicensees for sublicenses to the Licensed Patents granted [***].

(B) [***] percent ([***]%) of Sublicensing Revenue received by Fate from sublicensees for sublicenses to the Licensed Patents granted [***].

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(C) [***] percent ([***]%) of Sublicensing Revenue received by Fate from sublicensees for sublicenses to the Licensed Patents granted [***].

Notwithstanding the foregoing, in the event that rights other than the Licensed Patents are sublicensed, the consideration received will be equitably apportioned between the Patent Rights and those other rights, and it is understood and agreed by the parties that the maximum aggregate amount payable by Fate to Stanford with respect to such sublicense, whether such revenue is owed as Sublicensing Revenue under this Agreement or any other license agreements entered into between Fate and Stanford, shall not be greater than [***] percent ([***]%) of all upfront fees and other payments received by Fate in consideration of the grant of such sublicense.

4.7 **Royalty-Free Sublicenses.** If Fate pays all royalties due Stanford under this Agreement from a sublicensee's Net Sales, Fate may grant that sublicensee a royalty-free or non-cash:

(A) sublicense or

(B) cross-license.

4.8 **Permitted Subcontracting**. The license granted by Stanford in Section 3.1 includes the right to engage in Permitted Subcontracting, as defined herein. "Permitted Subcontracting" shall include the grant by Fate, its Affiliate, or sublicensee of rights under this Agreement to (i) third parties contractually bound to Fate, an Affiliate or sublicensee for the sole purpose of marketing or promoting a Licensed Product, (ii) third party contract research organizations contractually bound to Fate, an Affiliate or sublicensee with no other rights under Licensed Patents other than to perform research and development on behalf of Fate, an Affiliate or sublicensee; and (iii) third party contract manufacturing organizations contractually bound to Fate, an Affiliate or sublicensee with no other rights under Licensed Patents than to manufacture on behalf of Fate, an Affiliate or sublicensee. For clarity, Permitted Subcontracting is not considered sublicensing of rights under this Agreement.

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5 GOVERNMENT RIGHTS

In the event that this Agreement is subject to Title 35 Sections 200-204 of the United States Code., these provisions (i) provide the United States Government with nonexclusive rights in the Licensed Patent; and (ii) impose the obligation that Licensed Product sold or produced in the United States be "manufactured substantially in the United States." If such provisions are applicable to this Agreement, Fate will ensure all obligations of these provisions are met.

6 DILIGENCE

6.1 **Milestones.** Because the invention is not yet commercially viable as of the Effective Date, Fate will use commercially reasonable efforts to develop, manufacture, and commercialize at least one Licensed Product and will use commercially reasonable efforts to develop markets for such Licensed Product. In addition, Fate will use commercially reasonable efforts to meet the milestones shown in Appendix A, and notify Stanford in writing after each milestone is met.

6.2 **Missed Milestone.** In the event that [***] at least one Licensed Product and [***], Stanford and Fate agree to [***]. The parties will cooperate and use good faith efforts to [***]. Notwithstanding anything to the contrary in Article 16, Fate and Stanford acknowledge that termination of this Agreement under Section 16.3(A)(3) is a remedy of last resort.

6.3 **Progress Report.** By October 1 of each year, Fate will submit a written annual report to Stanford covering the preceding calendar year. The report will include information sufficient to enable Stanford to satisfy reporting requirements of the U.S. Government, as applicable, and for Stanford to ascertain progress by Fate toward meeting this Agreement's diligence requirements. Each report will describe, where relevant: Fate's progress toward commercialization of a Licensed Product, including work completed, key scientific discoveries, summary of work-in-progress, current schedule of anticipated events or milestones, market plans for introduction of a Licensed Product, and significant corporate transactions involving a Licensed Product.

6.4 **Clinical Trial Notice.** Fate will notify Stanford prior to commencing any clinical trials at Stanford.

7 ROYALTIES

7.1 **Issue Royalty.** Fate will pay to Stanford a one-time, non-creditable, non-refundable license issue royalty of forty thousand dollars ($40,000) upon signing this Agreement; provided, however that the payment of ten thousand dollars ($10,000) paid by Fate under the Exclusive License Term Sheet between the parties effective **October 5 2012** shall be credited against the license issue royalty due under this Agreement.

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7.2 **Equity Interest**. As further consideration, and subject to compliance with federal and state securities laws and other applicable laws, Fate will issue to Stanford 50,000 shares of common stock in Fate pursuant to the terms and conditions of the Stock Purchase Agreement attached hereto as Appendix B to be executed by the parties concurrently herewith. Fate will issue 28.34 % of all shares granted to Stanford pursuant to this Section 7.2 directly to and in the name of the inventors of the Licensed Patents listed below allocated as stated below:

Christopher Garcia – [***]

Aron Levin – [***]

7.3 **Repurchase Obligation.** If Stanford is to conduct any clinical trial relating to the Licensed Patents on behalf of Fate or any agent of Fate, Fate upon request by Stanford, will repurchase all Stanford's equity interest in Fate. In such case, Fate cannot begin any such trial until Stanford no longer holds any equity interest in Fate. The repurchase price for any such equity interest will be the fair market value for that equity at the time Fate and Stanford enter into a definitive agreement under which any such clinical research will be performed. Fair market value of publicly traded equity instruments will be determined by taking the average of the closing price for such equity over the thirty (30) days preceding such date. To establish fair market value of non-public equity instruments, the parties will rely on a third-party valuation expert proposed by Fate and reasonably acceptable to Stanford, where it is acknowledged that such third-party valuation expert shall use standard valuation methodologies for not publicly traded securities that are commonly accepted in the accounting industry.

7.4 **License Maintenance Fee**. On the first and second anniversaries of the Effective Date, Fate will pay Stanford a yearly license maintenance fee of [***] dollars ($[***]). On the third and fourth anniversaries of the Effective Date, Fate will pay Stanford a yearly license maintenance fee of [***] dollars ($[***]). On the fifth anniversary of the Effective Date, Fate will pay Stanford a yearly license maintenance fee of [***] dollars ($[***]). Fate will pay Stanford [***] dollars ($[***]) on each anniversary thereafter. After the first commercial sale of a Licensed Product, such amount shall be fully creditable against Earned Royalties for that year.

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7.5 **Milestone Payments**. Fate will pay Stanford the following milestone payments:

(A) [***] dollars ($[***]) upon first US patent issuance, where the [***], under Licensed Patents;

(B) [***] dollars ($[***]) upon [***] (payable once only);

(C) [***] dollars ($[***]) upon [***] (payable once only);

(D) [***] dollars ($[***]) upon [***] (payable once only); and

(E) [***] dollars ($[***]) upon [***] (payable once only).

7.6 **Earned Royalty.** Subject to the terms of this Agreement, Fate will pay Stanford earned royalties on a country-by-country basis on Net Sales in countries where the Licensed Product is covered by a Valid Claim. Fate will pay earned royalties of (a) [***] percent ([***]%) on Net Sales of a Licensed Product by Fate, its affiliates and/or sublicensees, [***] under the Licensed Patents; and (b) [***] percent ([***]%) on Net Sales of a Licensed Product by Fate, its affiliates and/or sublicensees, where the Licensed Product [***] under Licensed Patents.

7.7 **Royalty Stacking.** In the event that Fate incurs royalty or other payment obligations to any third party in order to develop, make, have made, use, have used, sell, have sold, offer for sale, have offered for sale, lease, have leased, import or have imported a Licensed Product within the Licensed Field of Use, then Fate can offset as a credit against earned royalty payable to Stanford under Section 7.6 on Net Sales of such Licensed Product, [***] percent ([***]%) of the amount actually paid to such third parties for sales of Licensed Product; provided, however, that in no event will the earned royalty payable to Stanford under Section 7.6 for Net Sales be reduced by more than [***] percent ([***]%).

7.8 **Earned Royalty if Fate Challenges the Patent.** Notwithstanding the above, should Fate bring any court action seeking to invalidate any Licensed Patent, Fate will pay royalties to Stanford at [***] as set forth in Section 7.6 during the pendency of such action. Moreover, should the outcome of such action determine that any claim of a patent challenged by Fate is both valid and infringed by a Licensed Product, Fate will [***] as set forth in Section 7.6 thereafter.

7.9 **Creditable Payments.** The license maintenance fee for a year may be offset against earned royalty payments due on Net Sales occurring in that year.

For example:

(A) if Fate pays Stanford a $10 maintenance payment for year Y, and according to Section 7.6 $15 in earned royalties are due Stanford for Net Sales in year Y, Fate will only need to pay Stanford an additional $5 for that year’s earned royalties.

(B) if Fate pays Stanford a $10 maintenance payment for year Y, and according to Section 7.6 $3 in earned royalties are due Stanford for Net Sales in year

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Y, Fate will not need to pay Stanford any earned royalty payment for that year. Fate will not be able to offset the remaining $7 against a future year's earned royalties.

7.10 **Obligation to Pay Royalties.** A royalty is due Stanford under this Agreement for any activity conducted under the licenses granted. For convenience's sake, the amount of that royalty is calculated using Net Sales. Nonetheless, solely in the event that certain Licensed Products are made or imported, but not sold, before the date this Agreement terminates, and such Licensed Products are then sold after the termination date, Fate will pay Stanford an earned royalty for its exercise of rights based on the Net Sales of such made or imported Licensed Products.

7.11 **No Escrow.** Fate shall not pay royalties into any escrow or other similar account.

7.12 **Currency.** Fate will calculate the royalty on sales in currencies other than U.S. Dollars using the appropriate foreign exchange rate for the currency quoted by the Wall Street Journal on the close of business on the last banking day of each calendar quarter. Fate will make royalty payments to Stanford in U.S. Dollars.

7.13 **Non-U.S. Taxes.** Fate will pay all non-U.S. taxes related to royalty payments. These payments are not deductible from any payments due to Stanford.

7.14 **Interest.** Any payments not made when due will bear interest at the lower of (a) the [***] or (b) the maximum rate permitted by law.

8 ROYALTY REPORTS, PAYMENTS, AND ACCOUNTING

8.1 **Quarterly Earned Royalty Payment and Report.** Beginning with the first commercial sale of a Licensed Product to a Customer, Fate will submit to Stanford a written report (even if there are no commercial sales during such calendar quarter) and an earned royalty payment within forty-five (45) days after the end of each calendar quarter. This report will be in the form of Appendix C and will state the number, description, and aggregate Net Sales of Licensed Product during the completed calendar quarter. With each report Fate will include any earned royalty payment due Stanford for the completed calendar quarter (as calculated under Section 7.6 and subject to Section 7.9).

8.2 **No Refund**. In the event that a validity or non-infringement challenge of a Licensed Patent brought by Fate is successful, Fate will have no right to recoup any royalties paid before or during the period challenge.

8.3 **Termination Report.** Fate will pay to Stanford all applicable royalties and submit to Stanford a written report within ninety (90) days after the license terminates. Fate will continue to submit earned royalty payments and reports to Stanford after the license terminates, until all Licensed Products made or imported under the license prior to its termination have been sold.

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8.4 **Accounting.** Fate will maintain records showing manufacture, importation, sale, and use of a Licensed Product for three (3) years from the date of sale of that Licensed Product, or for such longer period as is required by law. Records will include general-ledger records showing cash receipts and expenses, and records that include: production records, customers, invoices, serial numbers, and related information in sufficient detail to enable Stanford to determine the royalties payable under this Agreement.

8.5 **Audit by Stanford.** Upon at least fifteen (15) business days' advance written notice to Fate by Stanford, Fate will allow Stanford or its designee to examine Fate's records to verify payments made by Fate under this Agreement. Such examination shall not be made more than once each calendar year.

8.6 **Paying for Audit.** Stanford will pay for any audit done under Section 8.5. But if the audit reveals an underreporting of earned royalties due Stanford of [***] percent ([***]%) or more for the period being audited, Fate will reimburse Stanford for the audit costs.

9 EXCLUSIONS AND NEGATION OF WARRANTIES

9.1 As of the Effective Date, Stanford represents that it has received the assignment rights from Kenan Christopher Garcia and Aron Levin to the Licensed Patents.

9.2 **Negation of Warranties.** Except as noted in Section 9.1, Stanford provides Fate the rights granted in this Agreement AS IS and WITH ALL FAULTS. Stanford makes no representations and extends no warranties of any kind, either express or implied. Among other things, Stanford disclaims any express or implied warranty:

(A) of merchantability, of fitness for a particular purpose,

(B) of non-infringement or

(C) arising out of any course of dealing.

9.3 **No Representation of Licensed Patent.** Fate also acknowledges that Stanford does not represent or warrant:

(A) the validity or scope of any Licensed Patent, or

(B) that the exploitation of Licensed Patent will be successful.

10 INDEMNITY

10.1 **Indemnification.**

(A) Fate will indemnify, hold harmless, and defend all Stanford Indemnitees against any third party claim of any kind arising out of or related to the practice of the Licensed Patents by Fate under this Agreement or the

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material breach of this Agreement by Fate, except to the extent that such third party claims are attributable to the gross negligence or willful misconduct of any of the Stanford Indemnitees.

(B) HHMI Indemnitees will be indemnified, defended by counsel acceptable to HHMI, and held harmless by Company from and against any claim, liability, cost, expense, damage, deficiency, loss, or obligation, of any kind or nature (including, without limitation, reasonable attorneys' fees and other costs and expenses of defense) (collectively, "Claims"), based upon, arising out of, or otherwise relating to this Agreement, including without limitation any cause of action relating to product liability. The previous sentence will not apply to any Claim that is determined with finality by a court of competent jurisdiction to result solely from the gross negligence or willful misconduct of an HHMI Indemnitee.

10.2 **No Indirect Liability.** Neither party is liable to the other for any indirect, special, consequential or other damages whatsoever, whether grounded in tort (including negligence), strict liability, contract or otherwise arising out of or in connection with solely this Agreement under any theory of liability, provided, however, that the foregoing will not apply to any right of action for infringement, contributory infringement or inducement of infringement Stanford may have under any applicable law. Stanford will not have any responsibilities or liabilities whatsoever with respect to Licensed Products.

10.3 **Workers' Compensation.** Fate will comply with all statutory workers' compensation and employers' liability requirements for activities performed under this Agreement.

10.4 **Insurance.** Upon initiation of human clinical trials, Fate will maintain Comprehensive General Liability Insurance, including Product Liability Insurance, with a reputable and financially secure insurance carrier to cover the activities of Fate and its sublicensees. The insurance will provide minimum limits of liability of [***] dollars ($[***]) and will include all Stanford Indemnitees and HHMI Indemnitees as additional insureds. Insurance must cover claims incurred, discovered, manifested, or made during or after the expiration of this Agreement and must be placed with carriers with ratings of at least A- as rated by A.M. Best. Within fifteen (15) days of any request by Stanford, Fate will furnish a Certificate of Insurance evidencing primary coverage and additional insured requirements. Fate will provide to Stanford thirty (30) days prior written notice of cancellation or material change to this insurance coverage. All insurance of Fate will be primary coverage; insurance of Stanford Indemnitees and HHMI Indemnities will be excess and noncontributory.

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11 EXPORT

Fate warrants that Fate will not export or re-export the following, directly or indirectly, to any country, individual or entity except when such export or re-export is authorized in full compliance with the laws and regulations of the United States of America, as applicable:

(A) the licensed technology or software, or any portion thereof, or

(B) any foreign produced direct product (including equipment, processes or services) of the licensed technology or software; or

(C) any foreign produced direct product of a plant or major component of a plant if the direct product of the licensed technology is the plant itself or a major component of the plant.

Applicable laws and regulations may include, but are not limited to, the Export Administration Regulations, the International Traffic in Arms Regulations and the various economic sanctions regulations administered by the U.S Department of the Treasury.

12 MARKING

Before any Licensed Patent issues, Fate will mark a Licensed Product with the words “Patent Pending.” Otherwise, Fate will mark a Licensed Product with the number of any issued Licensed Patent.

13 STANFORD NAMES AND MARKS

Fate will not identify Stanford or HHMI in any promotional statement, or otherwise use the name of any Stanford or HHMI faculty member, employee, or student, or any trademark, service mark, trade name, or symbol of Stanford or Stanford Hospitals and Clinics or HHMI, including the Stanford or HHMI name, unless Fate has received Stanford’s or HHMI’s prior written consent. Permission may be withheld at Stanford’s or HHMI’s sole discretion. Notwithstanding the foregoing, without the consent of Stanford, Fate may state to its actual and prospective investors, strategic partners and sublicensees that it is licensed under the Licensed Patents and identify the inventors, their affiliation with Stanford and their relationship with Fate (if any), and further Fate may comply with disclosure requirements of all applicable laws relating to its business, including, without limitation, United States and state securities laws.

14 PROSECUTION AND PROTECTION OF PATENTS

14.1 **Patent Prosecution.** Following the Effective Date, Fate will be responsible for preparing, filing, and prosecuting the Licensed Patents (including any interference or re-examination actions) in the Licensed Territory and for maintaining all Licensed Patents using counsel that is reasonably acceptable to both parties, in cooperation and with reasonable advance consultation and input from Stanford. Fate will notify Stanford before taking any substantive actions in prosecuting the claims, and Stanford will provide information, execute and deliver documents and

do other acts as Fate shall reasonably request from time to time. Fate will reimburse Stanford for Stanford's reasonable costs incurred in complying with such requests. Stanford and Fate agree to the terms detailed in Appendix D and agree to have Appendix D fully executed by the appropriate parties upon execution of this Agreement. Fate may terminate its obligations with respect to any given patent application or patent by providing written notice of such termination at least thirty (30) days before any deadline for taking action to avoid abandonment (or other loss of rights). Commencing on the effective date of the notice to Stanford, Fate shall have no further right or licenses hereunder to such patent application or patent in such country(ies).

14.2 **Patent Costs.** Within thirty (30) days after receiving a statement from Stanford, Fate will reimburse Stanford:

(A) for all Licensed Patent's patenting expenses, including any interference or re-examination matters, incurred by Stanford in prosecuting the Licensed Patents before the Effective Date that have not been previously reimbursed to Stanford; and

(B) for all Licensed Patent's patenting expenses, including any interference or re-examination matters, incurred by Stanford after the Effective Date.

14.3 **Infringement Procedure.** If a party to this Agreement learns of any potential infringement of a Licensed Patent, within sixty (60) days that party will deliver written notice of the possible infringement to the other party, describing in detail the information suggesting such infringement of the Licensed Patent. During the Term of this Agreement and if Fate is actively pursuing development or commercialization of a Licensed Product, Fate may have the right to institute a suit against this third party as provided in Sections 14.4 – 14.8.

14.4 **Fate Suit.** Fate has the first right, but not the obligation, to respond to, settle, defend and prosecute in its own name and at its own expense, legal actions or suits relating to the Licensed Patents so long as it conforms with the requirements of this Section. Fate will use commercially reasonable efforts in pursuing the suit and Fate will bear the entire cost of any such litigation or settlement, including reasonable expenses and counsel fees incurred by Stanford in connection with the litigation and settlement. Stanford agrees to provide reasonable assistance as requested by Fate including, without limitation, joining such action as a party plaintiff if necessary or desirable for initiation or continuation of such action, provided that Stanford is not the first named party in the action. Fate will keep Stanford reasonably apprised of all developments in the suit, and will seek Stanford's reasonable input and approval on any substantive submissions or positions taken in the litigation regarding the scope, validity and enforceability of the Licensed Patent. Fate will not prosecute, settle or otherwise compromise any such suit in a manner that adversely affects Stanford's interests without Stanford's prior written consent, which consent shall not be unreasonably withheld, conditioned or delayed.

14.5 **Recovery.** If Fate institutes suit or enters into any settlement under Section 14.4, then any recovery in excess of any unrecovered litigation and settlement costs and fees will be shared with Stanford as follows:

(A) any payment for past sales will be deemed Net Sales, and Fate will pay Stanford royalties at the rates specified in Section 7.6;

(B) any payment for future sales will be deemed a payment under a sublicense, and such payment will be shared as specified in Section 4.6.

(C) Fate and Stanford will negotiate in good faith appropriate compensation to Stanford for any non-cash settlement or non-cash cross-license.

14.6 **Joint Suit.** If Stanford and Fate so agree, they may institute suit jointly. If so, they will:

(A) prosecute the suit in both their names;

(B) bear the out-of-pocket costs equally;

(C) share any recovery or settlement equally; and

(D) agree how they will exercise control over the action.

14.7 **Stanford Suit.** If Fate does not institute suit against an alleged infringer within six (6) months of receiving written notice of the possible infringement, Stanford may institute suit after notifying Fate in writing at least thirty (30) days before filing any action. Stanford will bear the entire cost of the litigation, including reasonable expenses and counsel fees incurred by Fate in connection with the litigation. Fate agrees to provide reasonable assistance as requested by Stanford including, without limitation, joining such action as a party plaintiff if necessary or desirable for initiation or continuation of such action. Stanford will keep Fate reasonably apprised of all developments in the suit, and will seek Fate's reasonable input and approval on any substantive submissions or positions taken in the litigation regarding the scope, validity and enforceability of the Licensed Patent. Stanford will not prosecute, settle or otherwise compromise any such suit in a manner that adversely affects Fate's interests without Fate's prior written consent, which consent shall not be unreasonably withheld, conditioned or delayed.

14.8 **Abandonment of Suit.** If either Stanford or Fate commences a suit and then wants to abandon the suit, it will give timely notice to the other party. The other party may continue prosecution of the suit after Stanford and Fate agree on the sharing of expenses and any recovery in the suit.

15 CONFIDENTIALITY AND PUBLICATION

15.1 **Treatment of Confidential Information**. Stanford and Fate agree that during the Term of this Agreement, and for a period of five (5) years after this Agreement terminates, a party receiving Confidential Information of the other party will (a) maintain in confidence such Confidential Information to the same extent such party maintains its own proprietary information; (b) not disclose such Confidential Information to

any third party without prior written consent of the other party; and (c) not use such Confidential Information for any purpose except those permitted by this Agreement. Notwithstanding the foregoing, if a party is required by law, regulation or court order to disclose Confidential Information of the other party, the party required to make such disclosure shall (i) promptly send a copy of the order or notice to the other party not later than ten (10) days before the proposed disclosure or such shorter period of time as may be reasonably practical under the circumstances; (ii) cooperate with the other party if the other party wishes to object or condition such disclosure through a protective order or otherwise; (iii) limit the extent of such disclosure to the minimum required to comply with the order or notice; and (iv) use reasonable efforts to seek confidential treatment (i.e., filing "under seal") for that disclosure. In addition, a party may disclose Confidential Information of the other party to its Affiliates and employees, to sublicensees and potential sublicensees (in the case of Fate), or to other third parties who are investors or potential investors in connection with due diligence or similar investigations or in confidential financing documents, provided, in each case, that any such Affiliate, employee, sublicensee, potential sublicensee or other third party investor or potential investor agrees to be bound by terms of confidentiality and non-use no less stringent than those set forth in this Section 15.

16 TERM; TERMINATION

16.1 **Term.** Unless otherwise terminated by operation of law or by the parties in accordance with the terms and conditions of this Agreement, the term of this Agreement (the "Term") shall commence on, and this Agreement shall be in force from, the Effective Date and remain in effect on a country-by-country basis until the last-to-expire or last to be abandoned claim of any Licensed Patent, whichever is later, licensed under this Agreement in such country (the "Patent Expiration Date"). After the Patent Expiration Date, the license granted in Article 3 shall become fully paid-up, royalty-free, perpetual and irrevocable in such country, subject to Section 7.10.

16.2 **Termination by Fate.** Fate may terminate this Agreement by giving Stanford written notice at least thirty (30) days in advance of the effective date of termination selected by Fate.

16.3 **Termination by Stanford**.

(A) Stanford may terminate this Agreement if Fate:

(1) is delinquent on any report or payment;

(2) is not actively pursuing development or commercialization of Licensed Product;

(3) misses a milestone described in Appendix A, provided that termination under this Section 16.3(A)(3) is subject to the provisions of Section 6.2;

(4) is in material breach of any provision of this Agreement; or

(5) provides any false report.

(B) Termination under this Section 16.3 will take effect sixty (60) days after written notice by Stanford unless Fate remedies the problem in that sixty (60) day period.

16.4 **Surviving Provisions.** Surviving any termination or expiration are:

(A) Fate's obligation to pay royalties accrued or accruable;

(B) any claim of Fate or Stanford, accrued or to accrue, because of any breach or default by the other party; and

(C) the provisions of Articles 8, 9, 10, 15 and 20.5 and any other provision that by its nature is intended to survive.

16.5 **Effect of Termination on Sublicensees.** If this Agreement is terminated for any reason, all outstanding sublicenses not in default will be assigned by Fate to Stanford (but not other non-sublicense contract elements). The assigned sublicenses will remain in full force and effect with Stanford as the licensor instead of Fate.

16.6 **Inventory.** Upon termination of this Agreement prior to its expiration, Fate shall have the right to dispose of all previously made or partially made Licensed Products, provided that Fate submits royalty reports on the sale of such Licensed Products and pays the earned royalty as required under this Agreement.

17 ASSIGNMENT

17.1 **Permitted Assignment by Fate.** Subject to Section 17.3, Fate may assign this Agreement as part of a sale, regardless of whether such a sale occurs through an asset sale, stock sale, merger, reorganization, consolidation or other combination, or any other transfer of:

(A) Fate's entire business; or

(B) that part of Fate's business that exercises all rights granted under this Agreement.

17.2 **Any Other Assignment by Fate.** Any other attempt to assign this Agreement by Fate is null and void.

17.3 **Conditions of Assignment.** Prior to any assignment, the following conditions must be met:

(A) Fate must give Stanford written notice of the assignment, including the new assignee's contact information, within thirty (30) days of the assignment; and

(B) the new assignee must agree in writing to Stanford to be bound by this Agreement; and

(C) Stanford must have received a [***] dollar assignment fee ($[***]) except that an assignment fee under this Section 17.3 will not apply and will not be payable upon an assignment of this Agreement to an affiliate, or in connection with an acquisition of the assets or sale of Fate related to this Agreement.

17.4 **After the Assignment.** Upon a permitted assignment of this Agreement pursuant to Article 17, Fate will be released of liability under this Agreement and the term "Fate" in this Agreement will mean the assignee. Subject to the foregoing, this Agreement in binding upon and inures to the benefit of Fate and its permitted successors and assigns.

18 ARBITRATION

18.1 **Dispute Resolution.** Except as otherwise provided herein, any dispute between the parties arising out of or relating to this Agreement will be settled by arbitration in accordance with the Licensing Agreement Arbitration Rules of the American Arbitration Association. The parties are not obligated to settle by arbitration any dispute relating to the validity of the Licensed Patents. Notwithstanding the foregoing, no dispute affecting the rights or property of HHMI shall be subject to the arbitration provisions set forth in this Article 18.

18.2 **Request for Arbitration.** Either party may request such arbitration. Stanford and Fate will mutually agree in writing on a third party arbitrator within thirty (30) days of the arbitration request. The arbitrator's decision will be final and non-appealable and may be entered in any court having jurisdiction.

18.3 **Discovery.** The parties will be entitled to discovery as if the arbitration were a civil suit in the California Superior Court. The arbitrator may limit the scope, time, and issues involved in discovery.

18.4 **Place of Arbitration.** The arbitration will be held in Stanford, California unless the parties mutually agree in writing to another place.

18.5 **Patent Validity.** Any dispute between Stanford and Fate, or Stanford and a sublicensee of Fate, regarding the validity of any Licensed Patent shall be litigated in the courts located in Santa Clara County, California, and the parties agree not to challenge personal jurisdiction in that forum.

* Confidential Information, indicated by [***], has been omitted from this filing and filed separately with the Securities and Exchange Commission.

19 NOTICES

19.1 **Legal Action.** Fate will provide written notice to Stanford at least three months prior to bringing an action seeking to invalidate any Licensed Patent or a declaration of non-infringement. Fate will include with such written notice an identification of all prior art it believes invalidates any claim of the patent.

19.2 **All Notices.** All notices under this Agreement are deemed fully given when written, addressed, and sent as follows:

All general notices to Fate are mailed to:

Fate Therapeutics, Inc.
Attn: CFO
3535 General Atomics Court, Suite 200
San Diego, CA 92121

All financial invoices to Fate (i.e., accounting contact) are e-mailed to:

accounting@fatetherapeutics.com
Attn: Jessica Francis
3535 General Atomics Court, Suite 200
San Diego, CA 92121

All progress report invoices to Fate (i.e., technical contact) are e-mailed to:

accounting@fatetherapeutics.com
Attn: Jessica Francis
3535 General Atomics Court, Suite 200
San Diego, CA 92121

All general notices to Stanford are e-mailed or mailed to:

Office of Technology Licensing
1705 El Camino Real
Palo Alto, CA 94306-1106
info@otlmail.stanford.edu

All payments to Stanford are mailed to:

Stanford University
Office of Technology Licensing
Department #44439
P.O. Box 44000
San Francisco, CA 94144-4439

All progress reports to Stanford are e-mailed or mailed to:

Office of Technology Licensing
1705 El Camino Real
Palo Alto, CA 94306-1106
info@otlmail.stanford.edu

Either party may change its address with written notice to the other party.

20 MISCELLANEOUS

20.1 **Waiver.** No term of this Agreement can be waived except by the written consent of the party waiving compliance.

20.2 **Choice of Law.** This Agreement and any dispute arising under it is governed by the laws of the State of California, United States of America, applicable to agreements negotiated, executed, and performed within California without reference to its conflicts of laws principles.

20.3 **Exclusive Forum.** The state and federal courts having jurisdiction over Stanford, California, United States of America, provide the exclusive forum for any court action between the parties relating to this Agreement. The parties submit to the jurisdiction of such courts, and waive any claim that such a court lacks jurisdiction over the parties or constitutes an inconvenient or improper forum.

20.4 **Headings.** No headings in this Agreement affect its interpretation.

20.5 **Third Party Beneficiary.** HHMI is not a party to this Agreement and has no liability to any licensee, sublicensee or user of any technology covered by this Agreement, but HHMI is an intended third-party beneficiary of this Agreement and certain of its provisions are for the benefit of HHMI and are enforceable by HHMI in its own name.

20.6 **Electronic Copy.** The parties to this document agree that a copy of the original signature (including an electronic copy) may be used for any and all purposes for which the original signature may have been used. The parties further waive any right to challenge the admissibility or authenticity of this document in a court of law based solely on the absence of an original signature.

The parties execute this Agreement in duplicate originals by their duly authorized officers or representatives.

THE BOARD OF TRUSTEES OF THE LELAND
STANFORD JUNIOR UNIVERSITY

Signature	/s/ Luis Mejia
Name	Luis Mejia
Title	Acting Director, Office of Technology Licensing
Date	13 May 2013

Fate Therapeutics, Inc.

Signature	/s/ Scott Wolchko
Name	Scott Wolchko
Title	CFO
Date	2 May 2013

APPENDIX A

Subject to Fate's right to extend the timeline for one or more diligence milestone events, as set forth below, Fate shall itself use, or shall cause its Affiliates or sublicensees, as applicable, to use commercially reasonable efforts to diligently proceed to develop and make commercially available at least one License Product in the Licensed Field of Use, consistent with sound and reasonable business practice and judgment, and in accordance with the following:

[***]

Notwithstanding anything to the contrary in this Appendix A, if Fate, its Affiliates or its sublicensees should experience any delay which is caused (in whole or in part) (a) by any requirement by the FDA to generate and/or provide carcinogenicity or other safety data regarding such Licensed Product, or (b) any requirement by the FDA to repeat any clinical trial regarding such Licensed Product, or (c) by the FDA, where such delay was not the result of Fate, its Affiliate's or its sublicensee's (i) actions; (ii) failure to abide by FDA instructions; and/or (iii) failure to provide data to the FDA in a form and in an amount consistent with best practices in the industry, then the timeline for all milestone events not yet achieved shall be extended for a period which is equal to the period of such delay.

Notwithstanding anything to the contrary in the Agreement, in the event that Fate is unable to achieve a given diligence milestone according to the applicable timeline as set forth above, Fate may, [***] under the Agreement, extend the timeline by [***] by making a [***] Dollar ($[***]) payment to Stanford (where, for the avoidance of doubt, all later occurring diligence milestone(s) shall also be similarly extended by [***]).

* Confidential Information, indicated by [***], has been omitted from this filing and filed separately with the Securities and Exchange Commission.

APPENDIX B

STOCK PURCHASE AGREEMENT

THIS STOCK PURCHASE AGREEMENT (this "Agreement") is entered into as of the 2nd day of May, 2013, by and between Fate Therapeutics, Inc., a Delaware corporation (the "Corporation"), with its principal place of business located at 3535 General Atomics Court, Suite 200, San Diego, CA 92121, and the Board of Trustees of the Leland Stanford Junior University, an institution of higher education having powers under the laws of the State of California ("UNIVERSITY").

WHEREAS, UNIVERSITY and the Corporation have entered into an Exclusive Patent License Agreement effective as of the 2nd day of May, 2013 (the "License Agreement");

WHEREAS, pursuant to the License Agreement, the Corporation has agreed to issue to UNIVERSITY thirty five thousand eight hundred thirty (35,830) shares (the "Shares") of common stock, par value $0.001 per share, of the Corporation (the "Common Stock") in accordance with the terms hereof;

WHEREAS, UNIVERSITY has agreed to accept the Shares upon such terms;

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

1. The Closing. The closing for the transactions contemplated hereby (the "Closing") shall take place at the offices of Goodwin Procter LLP, San Diego, California, on the date hereof or at such other time or location upon which the parties may mutually agree. The Corporation shall issue to UNIVERSITY the Shares at the Closing in consideration for (1) UNIVERSITY's execution and delivery of the License Agreement, and (2) payment by UNIVERSITY to the Corporation of an amount equal to the aggregate par value of the Shares being purchased by UNIVERSITY hereunder. Promptly after the Closing, the Corporation shall deliver to UNIVERSITY a stock certificate, registered in the name of UNIVERSITY, which shall represent the Shares.

2. Representations and Warranties of the Corporation. The Corporation hereby represents and warrants to UNIVERSITY at the Closing as follows:

2.1 Organization. The Corporation is a corporation duly organized, validly existing and in good standing under the laws of the State of Delaware and has all requisite corporate power and authority to carry out the transactions contemplated hereby.

2.2 Authorization of this Agreement. The execution, delivery and performance by the Corporation of this Agreement has been duly authorized by all requisite corporate action. This Agreement has been duly executed and delivered on behalf of the Corporation and constitutes the valid and binding obligations of the Corporation, enforceable in

accordance with its terms. The execution, delivery and performance of this Agreement, and the issuance, sale and delivery of the Shares, and compliance with the provisions hereof and thereof by the Corporation, do not and will not (i) violate any provision of law, statute, ordinance, rule or regulation or any ruling, writ, injunction, order, judgment or decree of any court, administrative agency or other governmental body, or (ii) conflict with or result in any breach of any of the terms, conditions or provisions of, or constitute a default (or give rise to any right of termination, cancellation or acceleration) under, or result in the creation of any lien, security interest, charge or encumbrance upon any of the properties or assets of the Corporation under, the Certificate of Incorporation or the Bylaws of the Corporation (as each may be amended and/or restated from time to time, the "Certificate of Incorporation" and "Bylaws", respectively).

2.3 Authorization of Shares. The issuance, sale and delivery of the Shares by the Corporation hereunder have been duly authorized by all requisite corporate action of the Corporation, and when so issued, sold and delivered in accordance with the terms of this Agreement, the Shares will be validly issued and outstanding, fully paid and nonassessable.

2.4 Exemptions from Securities Laws. Subject to the accuracy of the representations and warranties of UNIVERSITY set forth in Section 3, the provisions of Section 5 of the Securities Act of 1933, as amended (the "Securities Act") are inapplicable to the offering, issuance, sale and delivery of the Shares by virtue of the exemption afforded by Section 4(2) of the Securities Act, and no consent, approval, qualification or registration or filing under any state securities or "Blue Sky" laws is required in connection therewith, except for such filings which are required or permitted to be made after the Closing and which will be made on a timely basis by the Corporation.

3. Representations and Warranties of UNIVERSITY. UNIVERSITY hereby represents and warrants to the Corporation as of the Closing as follows.

(a) UNIVERSITY is duly organized, validly existing and in good standing under the laws of its jurisdiction of organization, has all requisite power and authority and has taken all necessary action required for the due authorization, execution, delivery and performance of this Agreement. This Agreement has duly executed and delivered on behalf of UNIVERSITY and constitutes the valid and binding obligations of UNIVERSITY, enforceable in accordance with its terms.

(b) UNIVERSITY has not been organized, reorganized or recapitalized specifically for the purposes of investing in the Corporation, and UNIVERSITY is acquiring the Shares for investment and not for, with a view to, or in connection with the distribution thereof.

(c) UNIVERSITY understands that the Shares have not been registered under the Securities Act or any state securities law by reason of their issuance in a transaction exempt from the registration requirements of the Securities Act and such laws, and that the Shares must be held indefinitely unless the Shares are subsequently registered under the Securities Act and such laws or a subsequent disposition thereof is exempt from registration. The certificates for the Shares shall bear a legend to such effect.

(d) UNIVERSITY understands that the exemption from registration afforded by Rule 144 promulgated by the Securities and Exchange Commission under the Securities Act depends upon the satisfaction of various conditions and that, if applicable, Rule 144 affords the basis for sales only in limited amounts.

(e) UNIVERSITY represents and warrants that it (i) has sufficient knowledge and experience in business and financial matters and with respect to investment in securities of privately held companies so as to enable it to analyze and evaluate the merits and risks of the investment contemplated hereby, (ii) is able to bear the economic risk of such investment, and (iii) is an "Accredited Investor" as defined in Rule 501(a) of Regulation D under the Securities Act. Further, UNIVERSITY is aware of the Corporation's business affairs and condition and has acquired sufficient information about the Corporation to reach an informed and knowledgeable decision to acquire the Shares.

(f) All negotiations relating to this Agreement and the transactions contemplated hereby have been carried on without the intervention of any person acting on behalf of UNIVERSITY in such manner as to give rise to any right, interest or valid claim for any brokerage or finder's commission, fee or similar compensation.

4. Additional Agreements.

4.1 Right of First Refusal. Before any Shares held by UNIVERSITY or any transferee of UNIVERSITY (either being referred to in this Agreement as the "Holder") may be sold or otherwise transferred (including transfer by gift or operation of law), the Corporation or its assignee(s) shall have a right of first refusal to purchase the Shares on the terms and conditions set forth in this Section 4.1 (the "Right of First Refusal").

(a) Notice of Proposed Transfer. The Holder of the Shares shall deliver to the Corporation a written notice (the "Notice") stating: (A) the Holder's *bona fide* intention to sell or otherwise transfer such Shares; (B) the name of each proposed purchaser or other transferee ("Proposed Transferee"); (C) the number of Shares to be transferred to each Proposed Transferee; and (D) the terms and conditions of each proposed sale or transfer. The Holder shall offer the Shares at the same price (the "Offered Price") and upon the same terms (or terms as similar as reasonably possible) to the Corporation or its assignee(s).

(b) Exercise of Right of First Refusal. At any time within 30 days after receipt of the Notice, the Corporation and/or its assignee(s) may, by giving written notice to the Holder, elect to purchase all or any portion of the Shares proposed to be transferred to any one or more of the Proposed Transferees, at the purchase price determined in accordance with clause (c) below.

(c) Purchase Price. The purchase price ("Purchase Price") for the Shares purchased by the Corporation or its assignee(s) under this Section 4.1 shall be the Offered Price. If the Offered Price includes consideration other than cash, the cash equivalent value of the non-cash consideration shall be determined by the Board of Directors of the Corporation in good faith.

(d) Payment. Payment of the Purchase Price shall be made, at the option of the Corporation or its assignee(s), in cash (by check), by cancellation of all or a portion of any outstanding indebtedness, or by any combination thereof within 30 days after receipt of the Notice or in the manner and at the times set forth in the Notice.

(e) Holder's Right to Transfer. If all of the Shares proposed in the Notice to be transferred to a given Proposed Transferee are not purchased by the Corporation and/or its assignee(s) as provided in this Section 4.1, then the Holder may sell or otherwise transfer such Shares to that Proposed Transferee at the Offered Price or at a higher price, provided that such sale or other transfer is consummated within 60 days after the date of the Notice and provided further that any such sale or other transfer is effected in accordance with any applicable securities laws and the Proposed Transferee agrees in writing that the provisions of this Section 3 shall continue to apply to the Shares in the hands of such Proposed Transferee. If the Shares described in the Notice are not transferred to the Proposed Transferee within such period, or if the Holder proposes to change the price or other terms to make them more favorable to the Proposed Transferee, a new Notice shall be given to the Corporation, and the Corporation and/or its assignees shall again be offered the Right of First Refusal before any Shares held by the Holder may be sold or otherwise transferred.

(f) Assignment. The right of the Corporation to purchase any part of the Shares may be assigned in whole or in part to any stockholder or stockholders of the Corporation or other persons or organizations.

(g) Restrictions Binding on Transferees. All Holders of Shares or any interest therein will receive and hold such Shares or interest subject to the provisions of this Agreement, including, insofar as applicable, the Right of First Refusal. Any sale or transfer of the Shares shall be void unless the provisions of this Agreement are satisfied.

4.2 Bring-Along Transactions. UNIVERSITY hereby agrees to the following:

(a) In the event of an Approved Transaction (as defined in that certain Amended and Restated Voting Agreement dated October 26, 2012, by and among the Corporation and the stockholders listed as parties thereto (a copy of which shall be provided to UNIVERSITY upon request), as the same may be amended and/or restated from time to time (the "Voting Agreement")), UNIVERSITY shall be bound by and, at the request of the Corporation, shall comply with all terms and conditions contained in Section 4 of the Voting Agreement to the same extent as the Founders (as defined in the Voting Agreement) are bound thereunder.

(b) In addition to and notwithstanding the foregoing, in the event the holders of a majority of the outstanding shares of equity securities of the Corporation (the "Majority Holders") determine to sell or otherwise dispose of all or substantially all of the assets of the Corporation or all or fifty percent (50%) or more of the capital stock of the Corporation, in each case in a transaction constituting a change in control of the Corporation, to any third party, or to cause the Corporation to merge with or into or consolidate with any third party (in each case, the "Buyer") in a *bona fide* negotiated transaction (a "Sale"), UNIVERSITY shall, at the request of the Corporation, (i) sell, transfer and deliver, or cause to be sold, transferred and delivered, to the Buyer, UNIVERSITY's Shares on substantially the same

terms applicable to the Majority Holders (with appropriate adjustments to reflect the conversion of convertible securities, the redemption of redeemable securities and the exercise of exercisable securities as well as the relative preferences and priorities of preferred stock) and (ii) execute and deliver such instruments of conveyance and transfer and take such other action, including voting such Shares in favor of any Sale proposed by the Majority Holders and executing any purchase agreements, merger agreements, indemnity agreements, escrow agreements or related documents as the Majority Holders or the Buyer may reasonably require in order to carry out the terms and provisions of this Section 4.2(b).

4.3 Market Standoff. UNIVERSITY agrees in connection with the Corporation's first public offering of Common Stock to the general public that is effected pursuant to a registration statement filed with, and declared effective by, the Securities and Exchange Commission under the Securities Act ("IPO"), upon request of the underwriters managing such IPO, not to sell, make any short sale of, loan, pledge or otherwise hypothecate or encumber, grant any option for the purchase of, or otherwise dispose of any shares of capital stock of the Corporation, including shares issuable upon exercise or conversion of Convertible Securities (other than those included in the registration) without the prior written consent of such underwriters, as the case may be, for such period of time (not to exceed 180 days, but subject to extension(s) as may be required by the underwriters in order to publish research reports while complying with Rule 2711 of the National Association of Securities Dealers, Inc.) as may be requested by such managing underwriters; provided, that all directors, officers and holders of one percent (1%) or more of the Corporation's outstanding capital stock are similarly bound; and provided, further, that any early release of any then-current or former officer or director or any holder of one percent (1%) or more of the Corporation's outstanding capital stock from market standoff agreements similar to the foregoing is apportioned pro rata among all securityholders bound by such market standoff agreements.

4.4 Termination of Rights. The provisions set forth in Sections 4.1 and 4.2 will terminate upon the earlier to occur of (a) the first sale of Common Stock of the Corporation to the general public pursuant to a registration statement filed with and declared effective by the Securities and Exchange Commission under the Securities Act and (b) the completion of a Liquidation (as defined in the Certificate of Incorporation).

5. Miscellaneous.

5.1 Dispute Resolution. For resolution of any dispute arising in connection with this Agreement (each a "Dispute"), the party raising the Dispute shall promptly notify the other party of such Dispute in writing describing in reasonable detail the nature of such Dispute. The parties shall attempt to resolve such Dispute through good faith discussions and negotiation. If the parties are unable to resolve such Dispute within a thirty (30) day period, the Dispute shall be referred to Corporation's Chief Executive Officer and UNIVERSITY's Vice Provost for Intellectual Property and Technology Transfer (the "Executives") for resolution. The Executives shall attempt to resolve such Dispute through good faith discussion and negotiation. If the Executives fail to resolve such Dispute within forty-five (45) days after the Dispute is referred to them, the parties may mutually agree to resolve such Dispute through other informal procedural means, including, but not limited to,

referral to an independent, neutral third party expert, mediation, arbitration and/or any other procedure(s) upon which the parties mutually agree. Each party agrees that, prior to resorting to litigation to resolve any Dispute, it will confer in good faith with the other party to determine whether other procedures that are less expensive or less time consuming can be adopted to resolve the Dispute. For the avoidance of doubt, in the event of a bona fide Dispute (for example, a Dispute regarding the existence of a material breach), the period for a party's performance in relation to such Dispute (for example, the cure of a disputed material breach), and all applicable statutes of limitation and time-based defenses (for example, laches and estoppel), shall be tolled from the date of delivery of written notice of such Dispute until the date of resolution of such Dispute pursuant to this Section 5.1.

5.2 Successors and Assigns. This Agreement shall be binding upon, and inure to the benefit of, each of the parties hereto and each other person or entity who shall become a registered holder named in any certificate evidencing shares of Common Stock transferred to such holder by UNIVERSITY or its transferees, and their respective heirs, legal representatives, successors and assigns.

5.3 Entire Agreement; Effect on Prior Documents. This Agreement and the other documents referred to herein or delivered pursuant hereto contain the entire agreement between the parties with respect to the financing transactions contemplated hereby and supersede all prior negotiations, commitments, agreements and understandings between them with respect thereto.

5.4 Notices. Any notice or communication given by one party to the other in connection with this Agreement shall be sufficiently given if given in accordance with the applicable provisions set forth in the License Agreement.

5.5 Amendments; Waivers. Except as otherwise provided herein, this Agreement may be amended, and compliance with any provision of this Agreement may be omitted or waived, only by the written agreement of the Corporation and the UNIVERSITY. A waiver or omission on one occasion shall not constitute a waiver or omission on any further occasion.

5.6 Counterparts, Facsimiles. This Agreement may be executed in any number of counterparts, each such counterpart shall be deemed to be an original instrument, and all such counterparts together shall constitute but one agreement. Facsimile transmission of execution copies or signature pages for this Agreement shall be legal, valid and binding execution and delivery for all purposes.

5.7 Sections, Headings. Section references herein refer to sections of this Agreement unless expressly provided to the contrary. The headings of the various sections of this Agreement have been inserted for convenience of reference only and shall not be deemed to be a part of this Agreement.

5.8 Governing Law. This Agreement shall be governed by and interpreted in accordance with the substantive laws of the State of California, regardless of its conflict of laws provisions.

5.9 Severability. Any provision of this Agreement that is prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceability without invalidating the remaining provisions hereof, and any such prohibition or unenforceability in any jurisdiction shall not invalidate or render unenforceable such provision in any other jurisdiction.

IN WITNESS WHEREOF, the parties have executed this Stock Purchase Agreement under seal as of the day and year first above written.

FATE THERAPEUTICS, INC.

By: /s/ Scott Wolchko

Name: Scott Wolchko

Title: CFO

BOARD OF TRUSTEES OF THE LELAND STANFORD JUNIOR UNIVERSITY

By: /s/ Katharine Ku

Name: Katharine Ku

Title: Director Technology Licensing

APPENDIX C

SAMPLE REPORTING FORM

Stanford Docket No.

This report is provided pursuant to the license Agreement between Stanford University and Fate Therapeutics.

License Agreement Effective Date:

Name(s) of Licensed Product(s):

Report Covering Period	
Yearly Maintenance Fee	$
Number of Sublicenses Executed	
Gross Sales	$
Net Sales	$
Royalty Calculation	
Royalty Subtotal	$
Credit	$
Royalty Due	$

Comments:

APPENDIX D

CLIENT AND BILLING AGREEMENT

The Board of Trustees of the Leland Stanford Junior University ("STANFORD"); and Fate Therapeutics, Inc., a Corporation of the State of Delaware, with a principal place of business at 3535 General Atomics Court, Sutie 200, San Diego, Ca 92121, ("COMPANY"); have agreed to use the law firm of Cooley, LLP ("FIRM") to prepare, file and prosecute the pending patent applications listed in Exhibit A attached hereto and maintain the patents that issue thereon ("Patents").

WHEREAS, FIRM desires to perform the legal services related to obtaining and maintaining the Patents; and

WHEREAS, STANFORD remains the client of the FIRM; and

WHEREAS, COMPANY is the licensee of STANFORD's interest in the Patents;

NOW THEREFORE, in consideration of the premises and the faithful performance of the covenants herein contained, IT IS AGREED:

1. FIRM can interact directly with COMPANY on all patent prosecution matters related to the Patents and will copy STANFORD on all correspondence. STANFORD will be notified by FIRM prior to any substantive actions and will have final approval on proceeding with such actions; provided that Stanford's actions regarding prosecution will promote the goal of obtaining the broadest patent coverage available with respect to the Patents, will be consistent with the goal of obtaining patents that are valid and enforceable and will not be detrimental to the practice of the Patents by Fate.

2. COMPANY is responsible for the payment of all charges and fees by FIRM related to the prosecution and maintenance of the Patents. FIRM will invoice COMPANY and must copy STANFORD on all invoices. COMPANY must pay FIRM directly for all charges.

3. Notices and copies of all correspondence should be sent to the following:

To COMPANY:

Scott Wolchko, CFO

Fate Therapeutics, Inc.

3535 General Atomics Court, Suite 200

San Diego, CA 92121

To STANFORD:

Name

Office of Technology Licensing

Stanford University

1705 El Camino Real

Palo Alto, CA 94306-1106

To FIRM:

Cooley LLP

ATTN: William Christiansen, Ph.D., Esq.

1700 Seventh Avenue, Suite 1900

Seattle, WA 98101-1355

4. The parties to this document agree that a copy of the original signature (including an electronic copy) may be used for any and all purposes for which the original signature may have been used. The parties further waive any right to challenge the admissibility or authenticity of this document in a court of law based solely on the absence of an original signature.

ACCEPTED AND AGREED TO:

STANFORD

By: /s/ Katharine Ku

Name: Katharine Ku

Title: Director

FATE THERAPEUTICS, INC.

By: /s/ Scott Wolchko

Name: Scott Wolchko

Title: CFO

Date: 7 May 2013

COOLEY LLP

By: /s/ William T. Christiansen

Name: William T. Christiansen

Title: Partner

Date: 5/7/13

CERTAIN CONFIDENTIAL PORTIONS OF THIS EXHIBIT WERE OMITTED AND REPLACED WITH "[***]". A COMPLETE VERSION OF THIS EXHIBIT HAS BEEN FILED SEPARATELY WITH THE SECRETARY OF THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO AN APPLICATION REQUESTING CONFIDENTIAL TREATMENT UNDER RULE 406 OF THE SECURITIES ACT OF 1933.

RESTATED LICENSE AGREEMENT

This Agreement made effective as of this 6th day of April, 2010 between:

The Ottawa Hospital Research Institute, with a business address of 725 Parkdale Avenue Ottawa, Ontario, K1Y 4E9, Canada (hereinafter "**Licensor**")

and

Verio Therapeutics Inc., with a business address of 100 Queen Street, Ottawa, Ontario, K1P 1J9, Canada (hereinafter "**Licensee**").

BACKGROUND

WHEREAS the corporate name of the Licensor was changed from the "Ottawa Health Research Institute" to "Ottawa Hospital Research Institute" by Supplementary Letters Patent dated March 19, 2009 under the Corporations Act of Ontario.

WHEREAS Licensee is in the business of the development and commercial exploitation of technology potentially useful for protein and small molecule therapies for the treatment or prevention of human diseases;

WHEREAS Licensor owns technologies relating to protein and small molecule therapies for the treatment of diseases and has filed patent applications relating to said technologies and co-owns with Licensee certain patent applications relating thereto that may be useful to Licensee in the operation of its business;

WHEREAS Licensor and Licensee may develop additional Co-Owned Technologies (as defined below) and patent applications;

WHEREAS Licensor wishes to see the aforementioned Licensor owned or co-owned technologies commercially exploited to the benefit of the Licensor, Licensee and ultimately the public through access to such technologies;

WHEREAS Licensor and Licensee entered into that certain License Agreement with an effective date of December 22nd, 2008, as amended June 5, 2009 and September 1, 2009 (the "**First License Agreement**"), pursuant to which Licensor granted and Licensee obtained a license to Licensor's patent rights in and to the aforementioned Licensor and Co-Owned Technologies, as further described herein;

WHEREAS Licensor and Licensee now desire to execute this Restated License Agreement (the "**Agreement**") which, as of the Effective Date of this Agreement, shall supersede the First License Agreement, as amended, in its entirety.

NOW THEREFORE, in consideration of the foregoing premises, the mutual covenants and obligations hereinafter contained, and other good and valuable consideration, Licensor and Licensee agree as follows.

ARTICLE 1
INTERPRETATION

1.1 Definitions

For the purposes of this Agreement, the following capitalized terms, words, and phrases, when used in either the singular or plural, shall have the following meanings.

"Affiliate" means, with respect to a party to this Agreement, any Entity which controls, is controlled by, or is under common control with such party, where the term "control" means direct or indirect possession of at least forty percent (40%) of the voting securities or comparable equity interest by or in such Entity.

"Business Day" means any day excepting a statutory holiday in the Province of Ontario or a Saturday or a Sunday.

"Calendar Quarter" means a period of three (3) months in the Gregorian calendar ending on the last day of March, June, September, or December.

"Commercial Sale" means the sale of a Licensed Product for consideration.

"Co-Owned Technologies" means technology, including all corresponding intellectual property rights thereto, developed, conceived or conceived and reduced to practice jointly by both employees, contractors or agents of Licensor and employees, contractors and agents of Licensee.

"Covered by the Licensed Patents" means that, in respect of a Licensed Product, the manufacture, use, sale or import of such Licensed Product would infringe, but for the License granted hereunder, a Valid Claim in the Licensed Patents in the country in which such Licensed Product is manufactured, used, sold or imported.

"Confidential Information" means any information disclosed under this Agreement and designated as being confidential or proprietary including but not limited to information relating to any scientific or engineering research project, inventions, discoveries, methods, processes, work in process, future developments, names of suppliers and customers, marketing and business plans relating to a party (the "**Disclosing Party**"), whether in oral, written, graphic or electronic form. Confidential Information shall not include information that is: (i) known to the other party (the "**Receiving Party**") prior to disclosure by the Disclosing Party, as evidenced by prior written business records; (ii) disclosed in published literature, other than by Receiving Party in violation of this Agreement; (iii) generally known or available to

industry prior to disclosure by the Disclosing Party; (iv) obtained by the Receiving Party from a third party who is not in breach of any confidentiality obligations to the Disclosing Party; (v) independently developed by the Receiving Party without any reference to confidential or proprietary information received from the Disclosing Party; (vi) approved in writing by the Disclosing Party for disclosure; or (vii) is required to be disclosed by operation of law or court order, provided the Receiving Party makes reasonable efforts to provide the Disclosing Party with notice of such requirement prior to any such disclosure by the Receiving Party and reasonably assists the Disclosing Party, at the Disclosing Party's expense, in avoiding and minimizing such disclosure or obtaining confidential treatment of such information required to be disclosed, to the extent possible.

"Effective Date" means the date this Agreement is made effective, as first written above.

"Entity" means a corporation, an association, a joint venture, a partnership, a trust, a business, an individual, a government or political subdivision thereof, including an agency, or any other organization, which can exercise independent legal standing.

"Field of Use" means all fields.

"Gross Revenues" means all cash, monies, receipts and other consideration received by the Licensee or its Affiliates arising from or in connection with Commercial Sales including royalties received by Licensor or its Affiliates from Sublicensees. If consideration is received in a form other than cash, Gross Revenue shall be the monetary equivalent or fair market value of such consideration, whichever is greater.

"Improvement" means any development, modification, enhancement, or addition to the subject matter of the Licensed Patents, Licensed Product, and Licensed Technology, as applicable, developed by Principal Investigators pursuant to any Sponsored Research Agreement between Licensee and Licensor, and "Improvements" shall be the plural of any Improvement.

"Licensed Patents" means (i) the claims of the patent applications identified in Exhibit A, (ii) any international patent applications corresponding to the foregoing, and (iii) any and all continuations, continuations-in-part, divisions, reissues, reexaminations, or extensions of the foregoing, and all patents that issue from any of the foregoing applications; and (iv) any patent applications for Improvements to the subject matter of subparagraphs (i), (ii), and (iii). For the avoidance of doubt, Licensed Patents shall include Licensor's ownership in and to any of the foregoing with respect to Co-Owned Technologies.

"Licensed Product" means any product, apparatus, method, process or service in the Field of Use that is covered by the Licensed Patents or uses or incorporates any Licensed Technology.

"Licensed Technology" means (i) the technologies contained in the Licensed Patents added to Exhibit A hereto by mutual written agreement of the parties and (ii) any Improvements thereto.

"License" means the license rights granted in Article 2 of this Agreement.

"Net Sales" means Gross Revenues actually received by Licensee or its Affiliates from a third party arising from a Commercial Sale of any Licensed Product, but excluding any Licensed Product furnished to any third party at-cost for research, testing and/or regulatory purposes, reduced by the following costs actually allowed and/or incurred by Licensee or its Affiliates in relation to the Commercial Sale of Licensed Products, as appropriate, and as evidenced by written business records:

(a) discounts, charge backs, returns, recalls, allowances for bad debts or uncollectible amounts and rebates;

(b) credits or refunds, not exceeding the original or customary billing or invoice amount, for claims or returns;

(c) transportation insurance premiums;

(d) reasonable outbound freight and other transportation expenses;

(e) discounts, in amounts customary in the trade, for quantity purchases, cash payments, prompt payments, wholesalers, and distributors; and

(f) taxes including sales, use, turnover, value-added, excise, import, export, withholding and other taxes, duties, or tariffs imposed by a government agency on such Commercial Sale and borne by Licensee or its Affiliates, except tax related to income derived by Licensee or its Affiliate's from such Commercial Sale.

"Principal Investigators" means Dr. Lynn Megeney and Dr. Michael Rudnicki.

"Sublicensee" means any Entity that is expressly licensed by Licensee, pursuant to the authority granted in this Agreement to grant sublicenses.

"Valid Claim" means a claim in an unexpired issued Licensed Patent that has not been held invalid or unenforceable by the final, unappealable decision of a court, or similar legal entity, of competent jurisdiction.

1.2 Entire Agreement

This Agreement, including the Exhibits appended hereto, constitute the entire agreement and understanding between Licensor and Licensee pertaining to the subject matter hereof and supersedes all prior agreements, understandings, negotiations and discussions pertaining to such subject matter, whether oral or written or in electronic form, specifically including the First License Agreement in its entirety. Except as specifically set out herein, there are no conditions, representations, warranties, undertakings, promises, inducements, or agreements whether direct, indirect, collateral, express or implied made by Licensor to Licensee. No modification, supplement or waiver of this Agreement shall be binding unless executed in writing by authorized officers of each party.

1.3 Force Majeure

Neither Licensor nor Licensee shall be in default of the terms of this Agreement because the party delays performance or fails to perform such terms; provided such delay or failure is not the result of the party's intentional or negligent acts or omissions, but the result of causes beyond the reasonable control of such party. Causes reasonably beyond the control of Licensor and Licensee shall include, but not be limited to, revolutions; civil disobedience; fires; acts of God, war, or public enemies; blockades; embargoes; strikes; labour disputes; laws; governmental, administrative or judicial orders, proclamations, regulations, ordinances, demands, or requirements; delays in transit or deliveries; or inability to secure necessary permits, permissions, raw materials, or equipment, except to the extent such event shall be within the control of the party seeking to rely on the provisions of this Article 1.3.

1.4 Governing Law

This Agreement shall be governed and construed in accordance with the laws of the Province of Ontario, and the laws of Canada applicable therein, without regard to any choice or conflict of laws, rule or principle that would result in the application of the laws of any other jurisdiction. Each of the parties irrevocably consents to the exclusive jurisdiction of the federal and provincial courts located in Ontario.

1.5 Headings

The article, section and subsection titles and headings contained in this Agreement are for convenience and reference only. Such titles and headings do not form a part of this Agreement, shall not define or limit the scope of the articles, sections or subsections, and shall not affect the construction or interpretation of any of the articles, sections or subsections.

1.6 Severability

If a court or other lawful authority of competent jurisdiction declares any provision, Article or Section of this Agreement invalid, illegal or unenforceable, this Agreement will continue in full force and effect with respect to all other provisions, Articles and Sections and all rights and remedies accrued under such other provisions, Articles and Sections will survive any such declaration. The parties shall, in good faith, negotiate substitute terms for any provision so declared illegal or unenforceable, which shall most nearly approximate the intent of the parties at the time they entered into this Agreement.

Article 2
GRANT OF RIGHTS

2.1 License

Subject to the terms and conditions of this Agreement, Licensor hereby grants to Licensee the exclusive (subject to 2.2), world-wide, royalty bearing right and license (with the right to sublicense) to use Licensor's rights in and to the Licensed Technology and the Licensed Patents in the Field of Use to develop Licensed Products and to make, have made, import, use, offer for sale and sell Licensed Products.

2.2 Rights Retained by Licensor

2.2.1 Licensed Technology and Licensed Patents

Notwithstanding the foregoing, Licensor retains the right to use and practice the Licensed Technology and the Licensed Patents within the Field of Use for non-commercial, research and/or academic purposes only.

2.2.2 Access to and Publication of Licensee Data by Licensor

In the event that Licensee's license to any of the Licensed Patents terminates, or upon Licensee's bankruptcy, insolvency, or dissolution, Licensee will grant to the Licensor a fully paid-up, royalty-free, perpetual, irrevocable, worldwide right and license to use any Licensee generated data related to such Licensed Patents to publish and/or publicly disclose the data, subject to the following provisions. Prior to any such publication or public disclosure of any Licensee generated data, methods, or results related to the Licensed Patents, Licensor will provide copies of the planned disclosure for Licensee's review. Licensee will have a period of thirty (30) days to review the planned disclosure (the "**Review Period**") and, if Licensee determines that the disclosure contains potentially patentable subject matter or other Confidential Information, then the Review Period will be extended for up to ninety (90) days to allow for the protection of Licensee's interests, including the preparation of patent applications and/or the removal of Confidential Information of Licensee; provided, however, that in the event that proceedings by or against Licensee are instituted in bankruptcy under any insolvency law, Licensor may proceed with such publication or public disclosure unless Licensee requests a delay of publication, in writing, within ninety (90) days of Licensor providing copies of the planned disclosure. In the event the Licensee is successful in raising additional financing and maintains ownership of the data it has generated, Licensee will review and discuss, reasonably and in good faith, with Licensor the publication of any Licensee generated data if the Principal Investigators or any other Licensor personnel had any involvement in the research that generated the data. Nothing herein shall restrict Licensor from publishing data generated by Licensor, its employees, contractors and agents relating to the Licensed Patents, provided no Confidential Information of Licensee is contained in any such publication without Licensee's prior written permission, which shall not be unreasonably withheld or delayed. If Licensor conducts research that is sponsored by Licensee under a separate sponsored research agreement, publication of data resulting from such sponsored research agreement shall be governed by the publication terms of said research agreement, which terms will provide for reasonable review by Licensee of any proposed publication of research results sponsored by Licensee to identify patentable subject matter that should be protected by the filing of a patent application(s).

2.3 No rights in Licensed Patents and Licensed Technology

Each party acknowledges that the rights and licenses granted under this Agreement are limited to the scope expressly granted. Accordingly, except for the rights expressly granted under this Agreement, no right, title, or interest of any nature whatsoever is granted by either party to the other party.

2.4 Rights to Sublicense

The License granted under this Agreement specifically includes the right of Licensee to grant sublicenses. Licensee agrees that any sublicense it grants to any third party shall be granted under the following conditions:

a. Any sublicense grant of rights to the Licensed Technology and/or the Licensed Patents shall be restricted to the Field of Use and shall be subject to substantially the same terms and conditions as set out in this Agreement (the "**Sublicense Agreement**"), with the exception of those terms and conditions that relate to additional royalties and additional consideration that Licensee may require a Sublicensee to pay to Licensee under the Sublicense Agreement, provided that [***]. Each Sublicense Agreement shall specifically reference this Agreement and all rights retained by Licensor.

b. Licensee shall provide to Licensor a fully executed copy of the Sublicense Agreement within fifteen (15) days following execution of the same.

Article 3
TERM

3.1 Term

The term of this Agreement, and the license granted under Section 2.1 hereof, shall commence on the Effective Date and, unless otherwise terminated earlier pursuant to the terms of this Agreement, shall extend until the last patent of Licensed Patents expires.

Article 4
LICENSING CONSIDERATION, OPTION and COMMERCIALIZATION

4.1 Up-Front Payments

In consideration for the license granted in this Agreement, Licensee shall pay to Licensor, the following payments:

a. The parties acknowledge that, pursuant to the First License Agreement, Licensee reimbursed Licensor for all past patent related costs incurred by Licensor retroactively to May 31, 2008 and prior to December 22, 2008 pertaining to patent families 1, 2,

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and 3, and 50% of past patent costs relating to patent family 7 as set out in Exhibit "A" to the Agreement, as invoiced by Licensor to Licensee, which amounts are non-refundable. Licensee shall not be required to reimburse Licensor for any past patent related costs incurred by Licensor prior to December 22, 2008 pertaining to patent family 4 of Exhibit "A", for which Licensee and Licensor shall bear their own costs, except as provided by Section 4.1(c) below;

b. Upon the Effective Date of this Agreement, Licensee shall pay to Licensor the amount of thirty-seven thousand dollars Canadian ($37,000 Cdn), which amount shall be non-refundable; and

c. Upon Licensee notifying Licensor, which it must do in writing prior to March 31, 2011, of its intention to retain its license to patent family 4 of Exhibit "A", Licensee shall pay to the Licensor thirty-one thousand dollars Canadian ($31,000 Cdn), which amount shall be non-refundable.

4.2 Earned Royalties

In consideration for the license granted in this Agreement and for the term of this Agreement, Licensee shall pay to Licensor, in the manner designated in this Agreement, an earned royalty as follows: [***]% of Net Sales.

Notwithstanding the foregoing, in the event such earned royalty relates to a Licensed Patent arising from Co-Owned Technologies, such earned royalty shall be reduced in a manner to reflect Licensor's relative contribution and ownership of such Licensed Patent, as specified in Exhibit B.

4.3 Annual License Fee

As a condition to maintain this Agreement and commencing on the first anniversary date of execution of this Agreement, Licensee shall pay to Licensor an annual license fee of [***] dollars Canadian ($[***] Cdn) for each calendar year this Agreement is in effect. Any maintenance payment due shall be paid with Licensee's final earned royalty report and payment for the appropriate calendar year. All maintenance payments will be fully creditable towards earned royalties, milestone payments and sublicensing revenue payments only for the specific year in which the maintenance payment is due.

4.4 Milestone Payments

Amount Cdn $	Milestone Event
$[***]	[***]
$[***]	[***]
$[***]	[***]
$[***]	[***]

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Notwithstanding the foregoing, in the event such milestone payment relates to a Licensed Product covered by a Licensed Patent arising from Co-Owned Technologies, such milestone payment shall be reduced in a manner to reflect Licensor's relative contribution and ownership of such Licensed Patent, as specified in Exhibit B.

4.5 Sublicensing Revenue

In addition to all other royalties and fees payable hereunder, Licensee will pay to Licensor a portion of all other consideration, whether cash or cash in-kind, received by Licensee, where such consideration is exchanged for rights granted to a Sublicensee pursuant to this Agreement, as follows: [***] percent ([***]%) of all consideration received where the sublicense is executed between [***]; [***] percent ([***]%) of all consideration received where the sublicense is executed between [***]; and, [***] percent ([***]%) thereafter.

Notwithstanding the foregoing, in the event such consideration includes Co-Owned Technologies, such consideration shall be reduced in a manner to reflect Licensor's relative contribution and ownership of such Co-Owned Technologies, as specified in Exhibit B.

4.6 Royalty Stacking

The parties recognize and agree that, in order for Licensee and/or its Sublicensees to develop and commercialize the Licensed Technology and/or Licensed Product within the Field of Use and Territory, it may be necessary for Licensee and/or its Sublicensees to make use of and/or incorporate multiple elements of third party intellectual property from multiple sources. Licensee will determine, acting reasonably and in good faith, which elements of third party intellectual property are required for the development and commercialization of the Licensed Technology and/or Licensed Product. Royalty payments or license fees may be required to be paid by Licensee and/or its Sublicensees to third parties if intellectual property owned by a third party is required for the commercialization of the Licensed Technology and/or Licensed Products in the Field of Use and Territory. All commercially reasonable payments to third parties that Licensee and/or its Sublicensees are required to pay to obtain licenses or other rights to use or incorporate third party intellectual property or products that are required for the development and commercialization of a Licensed Technology and/or Licensed Product in the Field Of Use and Territory will be creditable in the year they are paid by Licensee and/or its Sublicensees against royalties otherwise owed to Licensor hereunder in that same year for that same Licensed Technology or Licensed Product, *provided that* [***]*;* provided, that in no one year will such expenses be credited against more than [***]% of royalty payments otherwise owed to Licensor. In any event, in order for payments to third parties to be credited, such payments must have been commercially reasonable and have to have been made in good faith.

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4.7 Research Funding

The parties agree to confer with each other from time to time, but no less than once every [***], to consider additional research project(s) of Principal Investigator(s) which Licensee may wish to sponsor. Licensee will review and evaluate such project(s) in good faith, and the parties may negotiate a sponsored research agreement with respect to such project(s) upon the mutual consent of both parties.

4.8 Equity

The parties acknowledge that, upon execution of the First License Agreement, Licensor, [***] were issued a combined total of [***]% of the original equity in Licensee, which equity was divided between Licensor and these investigators as follows: [***]

Article 5
PAYMENTS AND REPORTS

Article

5.1 Payments

Unless otherwise specified in this Agreement, including Article 4.3 above, all amounts due Licensor shall be paid quarterly within thirty (30) days following the end of each Calendar Quarter based on Net Sales for each such Calendar Quarter. All such payments shall be remitted to Licensor's address given in the notification provision of this Agreement or to such other address as Licensor shall direct.

5.2 Payments in Canadian Dollars

All amounts due Licensor under this Agreement are in Canadian dollars and are to be paid in Canadian dollars. With respect to Net Sales received by Licensee and its Affiliates in currency other than Canadian dollars, calculations required to ascertain amounts due Licensor and any currency conversion necessary to make payment of amounts due Licensor shall be made using the official exchange rate quoted by the Royal Bank of Canada on the day transfer of funds is actually made. If such currency conversion is not reasonably possible, Licensee shall deposit any amounts owed to Licensor, in the currency of the Net Sales received, in the bank or trust association of the country of such currency designated by Licensor.

5.3 Late Fees

If any payment is made more than thirty (30) days late after the date such payment is due (an "**Overdue Payment**"), Licensee shall pay to Licensor interest on an Overdue Payment at a rate of [***]. Such interest will accrue on an Overdue Payment from the thirtieth (30th) day after the payment was due. Accrued interest will be due and payable on the first day of each month after interest begins to accrue, until full payment of such Overdue Payments and accrued interest is received by Licensor.

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5.4 Reports

During the term of this Agreement and for two years thereafter, Licensee shall keep, at its own expense, accurate books of account using accepted accounting procedures, detailing all data necessary to calculate any payments due Licensor from Licensee under this Agreement. Each payment made to Licensor shall be accompanied by a written report summarizing the data used to calculate the amounts paid. Each report pertaining to royalty payments for the applicable accounting period shall specifically include the following, as applicable, as well as any other information reasonably requested by Licensor with notice to Licensee:

i. itemized description of Licensed Products sold by Licensee, its Affiliates and its Sublicensees including, without limitation, quantity;

ii. Net Sales amounts and details of calculations used to calculate Net Sales;

iii. Royalties due, broken down by category and country; and

iv. Sublicensing consideration received by Licensee or its Affiliates.

All reports under this Section 5.4 will be treated as Confidential Information of the Licensee.

If during any quarterly reporting period, no Net Sales are invoiced, billed, or received and no payment is due to Licensor, Licensee shall nevertheless timely submit a written report to Licensor stating that no Net Sales were invoiced, billed, or received and no funds are due Licensor.

5.5 Examination of Records

Upon at least fifteen (15) days' written notice, Licensor shall have the right, through an independent, certified accounting firm, to examine such records and books of account of Licensee and its Affiliates as are necessary to verify the accuracy of Licensee's royalty payments hereunder. Such right may be exercised only once during any twelve-month period. Such examination may be performed at any time within two (2) years after the end of the reporting period to which the books of account pertain, and shall be performed during normal business hours at Licensee's or an Affiliate's major place of business or at such other site as may be agreed upon by Licensor and Licensee. The accounting firm may make abstracts or copies of such books of account solely for its use in performing the examination. Licensor shall require, prior to any such examination, such accounting firm to agree in writing that such firm will maintain all information, abstracts, and copies acquired during such examination in strict confidence and will not make any use of such material other than to confirm to Licensor the accuracy of Licensee payments hereunder.

5.6 Results of Examination

If any examination of the Licensee's records shows that Licensee has paid more than required under this Agreement, any excess amounts shall, at Licensee's option, be promptly

refunded or credited against future royalties with interest from the date of overpayment at [***]. If any examination of the Licensee's records shows that Licensee has paid less than required under this Agreement, Licensee shall promptly pay the additional amount due together with interest and late fees as required under this Agreement for late payments. If the amount of underpayment exceeds [***] percent ([***]%) of the amount which should have been paid, Licensee shall also pay all reasonable costs of such examination.

Article 6
PERFORMANCE

6.1 Licensee Efforts

During the term of this Agreement, Licensee shall use commercially reasonable efforts to exploit the Licensed Patents and/or Licensed Technology in the Field of Use in countries where it is commercially reasonable to develop Licensed Products hereunder, and to achieve the following development benchmarks ("**Benchmarks**") within the following time periods as set forth below:

Benchmark	Timeline
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]

In addition, Licensee will use commercially reasonable efforts to commercialize and market all Licensed Products as soon as practicable in accordance with the terms of a development plan prepared by Licensee within ninety (90) days of the Effective Date of this Agreement. Licensee will provide Licensor with (i) annual updates of the development plan, (ii) clear and comprehensive documentation of its investment in the development of Licensed Products, and (iii) annual written progress reports outlining the development, evaluation, testing and commercialization of all Licensed Products.

Licensee and Licensor agree to jointly and thoroughly review and discuss Licensee's efforts within six (6) months of the third (3rd) anniversary of this Agreement. Acting reasonably and in good faith, Licensee and Licensor will determine if any Licensed Product is not being actively developed, evaluated, tested or commercialized and Licensee agrees to review its interest in maintaining its license to the Licensed Patent of any such Licensed Product.

For each Licensed Patent, in the event (i) Licensee is unable to achieve a given Benchmark for a Licensed Product covered by such Licensed Patent in accordance with its applicable timeline and (ii) Licensor determines, acting reasonably, that commercially reasonable

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efforts are not being made by the Licensee to develop a Licensed Product covered by such Licensed Patent, Licensor may deliver written notice to Licensee of such non-performance. In the event Licensee has not cured the deficiencies outlined in such written notice within sixty (60) days after such written notice was received by Licensee, Licensor may, solely with respect to such Licensed Patent that is the subject of such non-performance, render the license to such Licensed Patent non-exclusive or terminate the license to such Licensed Patent, at the sole discretion of Licensor, upon written notice to Licensee of Licensor's decision.

Notwithstanding anything to the contrary in the Agreement, in the event that Licensee is unable to achieve a given Benchmark according to its applicable timeline, Licensee may, [***] for each Licensed Patent under the Agreement, extend the timeline by [***] by making a [***] dollars Canadian ($[***] Cdn) payment to Licensor (where, for the avoidance of doubt, all later occurring Benchmark(s) shall also be similarly extended by [***]).

If Licensee fails to reimburse Licensor for any patent costs for any Licensed Patents, the license rights to such Licensed Patents and the Licensed Technology they cover cease to be part of the license granted to Licensee under this Agreement and all license rights to such Licensed Patents and the Licensed Technology they cover will automatically return to Licensor to deal with at its sole discretion without any obligation to Licensee; provided, however, that Licensor has given Licensee written notice of any overdue payment owed by Licensee and Licensor fails to make such payment within thirty (30) days of receipt of such overdue payment notice. For clarity, Licensee will still be liable to Licensor for any outstanding patent costs incurred up to and including the date that the license to any such Licensed Technology and Licensed Patents is terminated.

Article 7
INTELLECTUAL PROPERTY MATTERS

7.1 Licensed Patents

Licensee shall be responsible for all further patent prosecution with respect to the Licensed Patents and Licensed Technologies set out in Exhibit "A". Licensee may select the patent agent for the prosecution of the Licensed Patents, subject to the approval of Licensor as the patent owner, which approval will not be unreasonably withheld. Licensee shall provide Licensor with copies of all relevant documentation related to the filing and prosecution of the Licensed Patents so that Licensor may be informed and apprised of and meaningfully consulted as to the continuing prosecution. Licensor shall keep all such documentation confidential. In the event the Licensee does not agree that any given patent application or patent should be filed, prosecuted or maintained (hereinafter referred to as a "**Refused Licensed Patent**") in a particular jurisdiction(s) Licensee shall indicate such disagreement in writing (hereinafter "**Refusal Notice**") and upon Licensor's receipt of such Refusal Notice Licensor shall have the right unilaterally to make, prosecute and maintain such Refused Licensed

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Patent in such jurisdiction(s) in the name of its owners, at Licensor's expense, and Licensee shall not have any rights or obligations to such Refused Licensed Patent in such jurisdiction(s); provided, however, that Licensee shall retain all of its ownership rights in any Refused Licensed Patent that is a Co-Owned Technology. In such case Licensor shall provide Licensee with copies of all relevant documentation related to the filing and prosecution of the Refused Licensed Patents so that Licensee may be informed and apprised of and be meaningfully consulted with as to the continuing prosecution. Licensor shall have no obligation to continue prosecution or maintenance of any Refused Licensed Patent and may abandon same without any prior notice or any obligation to Licensee.

Both Licensee and Licensor shall make best efforts to respond promptly to any request from the other Party for input or assistance with respect to matters pertaining to the Licensed Patents. Licensee shall use reasonable efforts to amend any patent application to include claims reasonably requested by the other Party and required to protect the Licensed Technology.

In addition to Licensee's obligations pursuant to section 4.1 above, Licensee shall be solely responsible for all patent and legal costs relating to the Licensed Patents and Licensed Technology (excluding Refused Licensed Patents) from the Effective Date onward, including all costs relating to the transfer of the Licensed Patents to the new patent agents selected by Licensee and approved by Licensor. For any patent and legal costs relating to the Licensed Patents and Licensed Technology (excluding Refused Licensed Patents) paid by Licensor after the Effective Date (including, without limitation, those expenses related to patentability assessments and drafting, filing, prosecution, maintenance, and taxes (the "**Patent Costs**")), Licensee shall promptly reimburse Licensor for such Patent Costs upon receipt of an invoice from Licensor for such expenses. For any work in progress with respect to the Licensed Patents for which the Patent Costs have not already been paid by Licensor to its patent firm prior to the transfer of the Licensed Patents to Licensee's patent agent, Licensor will direct its patent firm to copy Licensee on all such invoices from said patent firm and Licensee will promptly pay said invoices directly to Licensor's patent firm.

7.2 Patent Markings

Licensee shall comply with all applicable Canadian, United States and other foreign statutes relating to the marking of Licensed Product(s) and/or related packaging with patent pending, patent number(s), copyrights, or other intellectual property notices and legends required to maintain the intellectual property rights licensed under this Agreement.

7.3 Ownership of Technology

Subject only to the licenses granted to Licensee hereunder, all rights, title, and interest with respect to Licensed Patents and Licensed Technology that are not specifically granted herein are reserved to the owner thereof.

Article 8
WARRANTIES

8.1 Licensor Warranties

Licensor represents and warrants that:

a. [***];

b. Licensor has not granted to any other Entity any rights or licenses under the Licensed Technology or the Licensed Patents; and

c. As of the Effective Date, Licensor is not aware of, nor has Licensor received notice of any allegations or claims that the Licensed Technology or Licensed Patents infringe the patent rights of any third party. Licensee acknowledges and accepts that Licensor has made no inquiries or undertaken any due diligence with respect to this warranty and said warranty is limited to the immediate knowledge of the Licensor, without further inquiry.

8.2 Limitation on Licensor's Warranties

LICENSOR MAKES NO WARRANTIES, EXPRESS, IMPLIED OR STATUTORY, WITH RESPECT TO THE LICENSED PATENTS OR THE LICENSED TECHNOLOGY, OTHER THAN THOSE EXPRESSLY SET FORTH IN THIS AGREEMENT. ALL LICENSED PATENTS AND LICENSED TECHNOLOGY ARE MADE AVAILABLE TO LICENSEE STRICTLY ON AN "AS IS" BASIS. LICENSOR DOES NOT WARRANT THAT THE LICENSED PATENTS OR THE LICENSED TECHNOLOGY IS ERROR FREE OR THAT IT WILL MEET LICENSEE'S REQUIREMENTS. ALL IMPLIED WARRANTIES AND CONDITIONS OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY DISCLAIMED AND EXCLUDED. THE ENTIRE RISK AS TO THE RESULTS AND PERFORMANCE AND USE OF LICENSED TECHNOLOGY, LICENSED PATENTS, AND ANY PRODUCTS, SERVICES OR METHODS BASED ON THE LICENSED TECHNOLOGY IS ASSUIMED BY LICENSEE. OTHER THAN THOSE WARRANTIES EXPRESSLY SET FORTH IN THIS AGREEMENT, LICENSOR SPECIFICALLY DOES NOT MAKE ANY WARRANTIES OR REPRESENTATIONS, EXPRESS OR IMPLIED, CONCERNING THE PATENTABILITY OF ANY LICENSED TECHNOLOGY, THE VALIDITY OF ANY LICENSED PATENT(S), THE SCOPE OF ANY LICENSED PATENT(S) CLAIMS, OR WHETHER OR NOT THE EXERCISE OF THE RIGHTS LICENSED UNDER THIS AGREEMENT WILL OR WILL NOT RESULT IN INFRINGEMENT OF ANY INTELLECTUAL PROPERTY RIGHTS OF THIRD PARTIES.

8.3 Licensee's Indemnification

Licensee hereby indemnifies and undertakes to defend Licensor, the Ottawa Hospital and all their respective affiliates, officers, directors, employees, students, representatives, agents, consultants and contractors ("**Indemnified Parties**") and hold them harmless against all claims, suits, proceedings, demands, actions of any nature or kind whatsoever asserted against Indemnified Parties ("**Claims**"), and liabilities, damages, judgments, costs,

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expenses and fees incurred by Indemnified Parties as a result of Claims (including but without limitation, reasonable legal expenses) ("**Losses**"), to the extent that such Claims arise out of or are in any way associated with this Agreement including, without limitation, the development, use, manufacture, marketing, promotion, sale or other disposition of the Licensed Products or the use of Licensed Patents or Licensed Technology by Licensee, its Affiliates or Sub-licensees or other third parties; any loss, cost or expense incurred by the Indemnified Parties relating to claims that the Licensed Products or Licensed Technology infringe the patent rights or other proprietary rights of a third party; and, solely with respect to Claims by third parties, any material breach by Company or its Affiliates or Sublicensees of the Agreement, except in each case to the extent such Claims or Losses result from the gross negligence or willful malfeasance of the Indemnified Parties.

Licensee agrees to pay promptly to Licensor the amount of all Losses to which the foregoing indemnity relates. The indemnification rights of the Licensor herein are in addition to all rights which Licensor may have at law or in equity or otherwise.

This indemnification clause shall survive the termination or expiration of this Agreement.

8.4 Insurance

Prior to the first clinical trials involving humans or the first Commercial Sale of Licensed Product, whichever occurs earliest, Company shall promptly obtain and maintain comprehensive general liability insurance which shall insure against no less than the following risks: bodily injury, personal injury, liability, property damage, products liability, and other types of insurance in type and amount considered reasonable and prudent in the industry given the types of risks involved in the development, pre-commercialization (including, without limitation, clinical trials) and commercialization of the Licensed Products and Licensed Technology, but in no event less than [***] dollars ($[***]) per occurrence and [***] dollars ($[***]) in the annual aggregate. Company shall maintain such coverage with a third party commercial insurance carrier(s) rated A or better. Company shall cause the insurance carrier to include the Licensor, and the Ottawa Hospital as named additional insureds on all such policies. Company shall provide Licensor with copies of the endorsements to such policies naming Licensor, and the Ottawa Hospital as additional insureds. Company shall instruct its insurance carrier(s) providing such coverage to notify Licensor in writing thirty (30) days prior to any material change in coverage provided by such policies. The reference above to a minimum insurance requirement in no way limits the liability of Licensee hereunder to that amount, and for clarity the Licensee shall be responsible for properly insuring above the referenced minimum amount if it is reasonable and prudent in the industry to do so given the types of risks involved in the development, pre-commercialization (including, without limitation, clinical trials) and commercialization of the Licensed Products and Licensed Technology. This insurance clause shall survive termination or expiration of this Agreement.

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8.5 Consequential Damages

Except for any damages arising pursuant to a breach of Article 10, neither party shall have any liability of any kind to the other party for any indirect, incidental, special or consequential damages, however caused, even if such other party has been advised of the possibility of such damages.

Article 9
INFRINGEMENT

9.1 Licensed Technology Infringes Third Party's Rights

Should any third party threaten or make a claim that the manufacture, use, import or sale of a Licensed Product or the use of the Licensed Patents or the Licensed Technology by Licensee infringes or constitutes wrongful use of such third party's intellectual property rights, Licensee shall give Licensor prompt written notice detailing as many facts as possible concerning such claim. Licensor agrees, at Licensee's expense, to provide all necessary assistance to Licensee in its attempts to resolve such claims. To the extent that such claims are based solely on the use or practice of the subject matter Covered by the Licensed Patents or the Licensed Technology, Licensee may credit any reasonable legal costs, expenses, and fees expended by Licensee in defending against any such claims against earned royalties from sales of Licensed Products in those countries where such Licensed Products or the Licensed Technology are subject to such claims, up to a maximum credit of [***] percent ([***]%) of the earned royalties owing to Licensor hereunder. Licensee shall not enter into any agreement to settle any such claim without the prior written approval of the Licensor, which shall not be unreasonably withheld or delayed. Any award or settlement amount received by Licensee shall first be applied to Licensee's reasonable un-recovered legal costs of the action and then to payment to Licensor of any royalties that were credited as outlined above.

9.2 Third Party Infringement

Licensor and Licensee agree that, should either party become aware of, any actual or potential infringement or wrongful use of the Licensed Technology and/or the Licensed Patents, that party will give the other party prompt notice detailing as many facts as possible concerning such infringement or potential infringement or wrongful use. During the term of this Agreement, Licensee, at its own expense, shall have the right to prosecute infringement or wrongful use of the Licensed Technology and/or the Licensed Patents in the Field of Use. Licensee shall have the right to join Licensor as a party plaintiff in any action brought by Licensee to enforce the Licensed Technology and/or Licensed Patents. Should Licensee join Licensor, Licensee shall pay all expenses incurred by Licensor in its participation in the action, and Licensee shall indemnify the Indemnified Parties against any losses, judgments, or awards that the Indemnified Parties may incur as a result of such action. Licensee shall recover and retain any and all damages recovered from such an action after Licensor's expenses are paid, the Indemnified Parties are indemnified, all royalties and all other payments owing to Licensor under this Agreement have been paid in accordance with the Agreement, and Licensee's reasonable legal expenses are paid, in that order. The foregoing rights shall be subject to the continuing right of Licensor to intervene in an action commenced by Licensee at Licensor's own expense.

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* Confidential Information, indicated by [***], has been omitted from this filing and filed separately with the Securities and Exchange Commission

9.3 Licensor Enforcement

Should Licensee not commence an action against a third party that is infringing or wrongfully using the Licensed Technology and/or Licensed Patents within one hundred and eighty (180) days of receiving notice of such infringement, then Licensor may, at its sole discretion, commence an action in its own name against such third party, at Licensor's expense. Licensor shall have the right to join Licensee as a party plaintiff in any action brought by Licensor to enforce the Licensed Technology and/or Licensed Patents intellectual property rights. Should Licensor join Licensee, Licensor shall pay all expenses incurred by Licensee in its participation in the action. Licensor shall recover and retain any and all damages recovered from such an action

Article 10
CONFIDENTIAL INFORMATION

10.1 Confidential Information

Licensor and Licensee may disclose to one another Confidential Information for the purposes contemplated in this Agreement. Licensor and Licensee agree to use reasonable efforts to protect such Confidential Information and preserve its confidential and proprietary. Licensor and Licensee shall each use at least the same degree of care and precaution as is customarily used to protect their own Confidential Information and which in any event shall be no less than the degree of care generally exercised in the industry to protect Confidential Information. Licensor and Licensee each agree that such party shall utilize all such Confidential Information of the other solely for furthering the objectives of this Agreement and will not, either during the term of this Agreement or at any time subsequent to the termination of this Agreement, otherwise use such information of the other for its own benefit or for the benefit of others; nor will such party publish or otherwise disclose such Confidential Information of the other to any other individual or entity without the prior written consent of the other.

Article 11
TERMINATION

11.1 Licensor's Right to Terminate

Licensor may, at its option, terminate this Agreement immediately and without notice if Licensee:

a. makes a general assignment for the benefit of creditors, suffers or permits the appointment of a receiver for its business or assets, or avails itself of, or becomes subject to, any proceeding under any Bankruptcy and Insolvency Act or any other statute of any state or country relating to insolvency or the protection of creditor's rights; or

b. is in breach or default of any material obligation under this Agreement and fails to cure such breach or default, or satisfy that such breach or default has been cured, or otherwise reach agreement with Licensor on a procedure to remedy the breach or default within sixty (60) days after receiving notice from Licensor to cure, except for failure of Licensee to reimburse Licensor for patent costs which breach or default must be cured by Licensee within fifteen (15) days of receipt of notice from Licensor per Section 6.1 above. In the event that the claimed breach or default involves a dispute over royalties or other payments claimed to be owed by Licensee hereunder, Licensee may satisfy its obligation to cure or remedy such claimed breach under this Section 11.1 by placing the amounts Licensor reasonably believes are owed to it in an escrow account, held by an unrelated third party escrow agent, until such time as the dispute over such royalties or payments is resolved.

11.2 Licensee's Right to Terminate:

Licensee may terminate this Agreement together with all licenses granted hereunder upon ninety (90) days prior written notice to Licensor.

11.3 Obligations on Termination

Termination of this Agreement shall not release Licensor or Licensee from any obligation or liability to the other which shall have matured or accrued prior to termination. The following rights and obligations, in addition to others as expressly provided herein, shall survive termination:

a. Licensee shall make all reports as required herein prior to termination and shall submit a final report as reasonably requested by Licensor within sixty (60) days of such request;

b. Licensee shall pay all royalties or other payments due Licensor accrued or accruable for payment prior to termination, within thirty (30) days of the effective date of termination;

c. Licensee shall maintain all records required to be kept herein for the period before termination, and shall allow Licensor examination privileges as set forth in Section 5.5 for twelve (12) months after the effective date of the termination;

d. any licenses, releases, or agreements of non-assertion running in favour of end users of Licensed Products that have been entered into by Licensee with the approval of Licensor;

e. all claims and causes of action one party may have against the other; and

f. all obligations to preserve and maintain the confidentiality of Confidential Information, except as required by court orders or by law or to satisfy government regulations.

11.4 Assignment of Sublicenses

Upon termination of this Agreement, Licensee agrees to assign to Licensor all its rights under the Sublicense Agreements granted under this Agreement. All Sublicense Agreements shall contain the provision that Licensee may assign the Sublicense Agreements to Licensor if this Agreement is terminated; provided that Licensor shall not be required to accept such an assignment and may terminate any such Sublicense Agreement without obligation or liability to Licensee or its Sublicensee if (i) Licensee has not complied with the requirements of Article 2.4 (Rights to Sublicense) of this Agreement; (ii) if such Sublicense Agreement does not comply with Article 2.4 of this Agreement, or (iii) if Sublicensee is in breach of their Sublicense Agreement.

Article 12
GENERAL PROVISIONS

12.1 Alternative Dispute Resolution

In the event of any dispute or disagreement between the Licensor and Licensee with respect to the interpretation of any provision of this Agreement or the performance of Licensor or Licensee under this Agreement, upon the written request of either party, Licensee, as represented by a designated representative of Licensee's choice, and Licensor, as represented by a designated representative of Licensor's choice, will meet for the purpose of resolving such dispute or negotiating an adjustment or modification to such provision of this Agreement. The designated representatives will discuss the dispute and negotiate in good faith without the necessity of any formal proceedings related thereto. The dispute shall be referred for non-binding alternative dispute resolution ("**ADR**") by either party if the designated representatives have not been able to resolve the dispute within [***] of their first meeting. No binding arbitration proceeding may be commenced unless the dispute is not settled within [***] of referral to ADR of such dispute. Licensee and Licensor shall share equally the costs of ADR.

12.2 Arbitration

Any dispute, controversy, or claim between Licensor and Licensee, arising out of or relating to this Agreement or the breach, termination, interpretation, or invalidity thereof, which is not settled within [***] of referral to ADR of such dispute, shall be settled, when permitted by law, final, by binding non-appealable arbitration under the following terms and conditions.

a. Within [***] of the receipt of a demand for arbitration from the other party, Licensor and Licensee shall each select an arbitrator and give notice to the other party of the selection, including the arbitrator's name, address, and phone number. The two chosen arbitrators shall select a third arbitrator to act with them in the arbitration,

* Confidential Information, indicated by [***], has been omitted from this filing and filed separately with the Securities and Exchange Commission

b. The decision of a majority of the arbitrators will be final and binding upon Licensor and Licensee. Both Licensor and Licensee agree to accept and abide by the decision.

c. The arbitrator(s), in their discretion, shall allocate all costs of the arbitration between Licensor and Licensee. However, neither Licensor nor Licensee shall be required to pay the costs of the other party and the arbitrator chosen by such other party.

d. All arbitration authorized by this Agreement shall be conducted in accordance with the Arbitrations Act (Ontario). The award of the arbitrator shall be final and binding upon the parties and all persons claiming through or under them. Judgment upon the award rendered by the arbitrator may be entered in any court having jurisdiction and thereupon execution or other legal process may issue thereon. The parties hereto and all persons claiming through or under them hereby attorn to the jurisdiction of the arbitrator and to the jurisdiction of any court in which the judgment may be entered.

12.3 Arbitration-Administrative Considerations

During any period of arbitration concerning this Agreement, this Agreement shall remain in full force and effect and all terms shall be complied with by both Licensor and Licensee.

12.4 Assignment

This Agreement may not be assigned or transferred by Licensee without the prior written consent of Licensor, which shall not be unreasonably withheld, except that, upon giving thirty (30) days advance written notice to Licensor, Licensee may assign this Agreement without consent to (i) an Affiliate of Licensee provided such Affiliate first agrees in writing to abide by the terms of this Agreement, a copy of which agreement shall be promptly provided to Licensor, or (ii) a successor to all or substantially all of the business of Licensee to which this Agreement relates, whether by merger, sale of stock, sale of assets or similar transaction, operation of law or otherwise. This Agreement shall enure to the benefit of and be binding upon the parties hereto and their respective successors and permitted assigns.

12.5 Notices

Any demand, notice or other communication to be given in connection with this Agreement shall be given in writing and shall be given by personal delivery, mail, courier, or by fax addressed to the recipient as follows:

Licensor's notification address:

The Ottawa Hospital Research Institute
General Campus, 5th Floor Critical Care Wing, room 5206b 501 Smyth Road
Ottawa, Ontario K1H 8L6, Canada
ATTN: Robert Hanlon, Chief Operating Officer
Tel no. (613) 739-6815 Fax no. (613) 739-6294
Email: rhanlon@ohri.ca

Licensee's notification address:
Verio Therapeutics Inc.
[***]

or to such other address, individual or electronic communication number as may be designated by notice given by either party to the other. Any demand, notice or other communication given by personal delivery shall be conclusively deemed to have been given on the day of actual delivery thereof and, if given by electronic communication, on the day of transmittal thereof if given during the normal business hours of the recipient and on the Business Day during regular business hours of the recipient and on the Business Day during which such business hours next occur if not given during such hours on any day.

12.6 Waiver of Rights

In order to be effective, any waiver, by either party, of any right under this Agreement, must be in writing signed by an authorized representative of the party making the waiver. No such waiver or failure of Licensor or Licensee to enforce a right or strict performance under this Agreement shall be deemed to be a waiver or forbearance which would in any way prevent Licensor or Licensee from subsequently asserting or exercising any such rights, making a claim not specifically waived, or requiring strict performance of this Agreement. No such waiver or failure to enforce shall affect the validity of this Agreement or be a continuing waiver excusing compliance with any provision of this Agreement in the future.

12.7 Publicity

Neither party will use the name of the other party in any publicity without the prior written approval of the party being so named. Such approval from either party shall not be unreasonably withheld or delayed. Licensee, its Affiliates, Sub-Licensees, employees, and agents will not use Licensor's name, seal, logo, trademark, or service mark, or any adaptation of them, or the name, mark, or logo of any representative, organization or employee of Licensor in any way without the prior written consent of Licensor in its sole discretion.

12.8 Interpretation

The parties acknowledge that this Agreement has been the subject of full opportunity for negotiation and amendment and that the party who has taken the role of drafter shall not suffer any adverse construction of any terms or language of this Agreement because of such role.

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* Confidential Information, indicated by [***], has been omitted from this filing and filed separately with the Securities and Exchange Commission

12.9 Time of the Essence

Time is of the essence with respect to this Agreement.

12.10 Language

This Agreement is drawn up only in English at the request of both parties. Les parties aux présentes conviennent que ce document soit rédigé en anglais seulement.

IN WITNESS WHEREOF, Licensor and Licensee have caused this Agreement to be executed by their duly authorized representative.

IN WITNESS WHEREOF the parties have executed this Agreement on this 6th day of April, 2010.

OTTAWA HOSPITAL RESEARCH INSTITUTE		**Verio Therapeutics Inc.**	
By:	/s/ Robert Hanlon	By	/s/ Frank Gleeson
Typed Name:	ROBERT HANLON	Typed Name:	Frank Gleeson
Title	Chief Operating Officer	Title:	
Date	April 6/2010	Date:	April 6, 2010

Exhibit A
Licensed Technology/Licensed Patents

[***]

* Confidential Information, indicated by [***], has been omitted from this filing and filed separately with the Securities and Exchange Commission

Exhibit B

Co-Owned Contribution

**[*****]

Assignees /Co-Owners	OHRI	Verio Therapeutics
Inventors	[***]	[***]
Contribution	[***]	[***]

* Confidential Information, indicated by [***], has been omitted from this filing and filed separately with the Securities and Exchange Commission

CERTAIN CONFIDENTIAL PORTIONS OF THIS EXHIBIT WERE OMITTED AND REPLACED WITH "[***]". A COMPLETE VERSION OF THIS EXHIBIT HAS BEEN FILED SEPARATELY WITH THE SECRETARY OF THE SECURITIES AND EXCHANGE COMMISSION PURSUANT TO AN APPLICATION REQUESTING CONFIDENTIAL TREATMENT UNDER RULE 406 OF THE SECURITIES ACT OF 1933.

First Amendment to Restated License Agreement

This First Amendment (hereafter, the "First Amendment") amends the Restated License Agreement dated April 6, 2010 (the "Agreement") between Fate Therapeutics (Canada) Inc. (successor to Verio Therapeutics, Inc. and herein referred to as "Fate Canada" or "Licensee") and the Ottawa Hospital Research Institute ("OHRI" or "Licensor"), and shall be effective as of February 14, 2012 (the "First Amendment Date"). Licensee and Licensor shall each individually be referred to as a "Party", and shall be referred to together as the "Parties".

All capitalized terms that are used in this Amendment and not defined herein shall have the meanings ascribed to them in the Agreement. Except as specifically modified by this Amendment, the Parties hereto agree that all of the terms and conditions set forth in the Agreement remain in full force and effect.

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereby agree, and amend the Agreement, as follows:

1. Amendment to "Effective Date" of the Agreement

Section 1.1 of the Agreement is amended to replace the definition of "Effective Date" in its entirety with the following:

"Effective Date" of this Agreement shall mean April 6, 2010.'"

The Parties hereby acknowledge and agree that all references in the Agreement to the Effective Date refer to April 6, 2010.

2. Amendment to Exhibit 'A" of the Agreement

Exhibit "A" of the Agreement is replaced in its entirety with "Amended Exhibit A" attached to this Amendment, which adds [***] to the list of Licensed Patents/Licensed Technology under the Agreement and updates the status of the Licensed Patents/Licensed Technology.

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* Confidential Information, indicated by [***], has been omitted from this filing and filed separately with the Securities and Exchange Commission

3. Amendment to Section 4.3 of the Agreement

Section 4.3 of the Agreement is amended to provide in its entirety as follows:

"Within thirty days of the First Amendment Date, Licensee shall pay to Licensor an initial license maintenance fee (the "Initial License Maintenance Fee") of [***] dollars Canadian ($[***] Cdn). The parties agree and acknowledge that this Initial License Maintenance Fee represents the total license maintenance fees due for the period from January 2010 to December 2011. Commencing on the First Amendment Date, Licensee shall thereafter pay to Licensor an annual license maintenance fee (the "Annual License Maintenance Fee") of [***] dollars Canadian ($[***] Cdn) for each calendar year this Agreement is in effect. Any Annual License Maintenance Fee payment due shall be paid with Licensee's final earned royalty report and payment for the appropriate calendar year, and shall be due within 30 days of the end of the calendar year for which such payment is due. All Annual License Maintenance Fee payments will be fully creditable towards earned royalties, milestone payments and sublicensing revenue payments only for the specific year in which the Annual License Maintenance Fee is due."

4. Amendment to Section 5.1 of the Agreement

Section 5.1 of the Agreement is amended to provide in its entirety as follows:

"Unless otherwise specified in this Agreement, including Section 4.3 above, all amounts due Licensor shall be paid quarterly within thirty (30) days following the end of the Calendar Quarter in which an applicable milestone is achieved under Section 4.4 or sublicensing revenue is received under Section 4.5, or otherwise based on Net Sales for such Calendar Quarter."

5. Amendment to Section 5.4 of the Agreement

The following sentence is added as the last sentence of Section 5.4 of the Agreement:

"Notwithstanding the foregoing, the Parties agree that, until such time as the first payment is due under Section 5.1 of the Agreement, in lieu of submitting a quarterly written report stating that no payment is due to Licensor, Licensee may state in the annual written progress reports due under Section 6.1 that no Net Sales were invoiced, billed, or received, and no funds are due to Licensor."

6. Amendments to Article 6 of the Agreement

(a) Section 6.1 of the Agreement is amended to replace the second full paragraph of Section 6.1 with the following:

"In addition, Licensee will use commercially reasonable efforts to commercialize and market all Licensed Products as soon as practicable in accordance with the terms of a development plan prepared by Licensee within ninety (90) days of the Effective Date of the Agreement. Licensee

* Confidential Information, indicated by [***], has been omitted from this filing and filed separately with the Securities and Exchange Commission

will provide Licensor with annual written development reports, due within ninety (90) days of the end of each calendar year, which shall include (i) an update of the development plan, (ii) clear and comprehensive documentation of its investment in the development of Licensed Products, and (iii) a progress report outlining the development, evaluation, testing, and commercialization of all Licensed Products."

(b) Article 6 of the Agreement is amended by the addition of new Section 6.2 as follows:

"6.2 Notwithstanding the foregoing Section 6.1, the Parties agree that for all patent applications added to the Licensed Patents/Licensed Technology after the Effective Date of the Agreement, the applicable timeline for each Benchmark with respect to such added patent application shall be based on the date that such patent application is added to the Licensed Patents/ Licensed Technology, rather than the Effective Date of the Agreement."

7. Miscellaneous

(a) Survival. Each of the Parties hereto acknowledges that all terms and conditions of the Agreement remain in full force and effect, as modified by this First Amendment.

(b) Entire Agreement. The Agreement, together with this First Amendment, shall be read and construed as a single instrument. The Agreement and this First Amendment (including the revised Exhibit A attached hereto), constitute the entire agreement and understanding between Licensor and Licensee relating to the subject hereof. No verbal agreement, conversation or representation between any officers, agents, or employees of the Parties hereto either before or after the execution of the Agreement or this First Amendment shall affect or modify any of the terms or obligations therein or herein contained. Any further amendment to the terms of the Agreement or this First Amendment shall be made in writing and signed on behalf of each Party by a duly authorized officer.

(c) Further Assurances. Each Party covenants that at any time, and from time to time, after the First Amendment Date, it will execute such additional instruments and take such actions as may be reasonably requested by the other Party to confirm or perfect or otherwise to carry out the intent and purposes of this First Amendment.

(d) Successors and Permitted Assigns. This First Amendment shall enure to the benefit of and be binding upon the successors, the Parties and their respective successors and permitted assigns.

(e) Counterparts. This First Amendment may be executed in any number of counterparts or by facsimile transmission, provided that the Party providing its signature in such manner shall promptly forward to the other Party an original of the executed copy, with the same effect as if the Parties had signed one original copy of this agreement. All counterparts shall be construed as if they constituted one and the same original document.

(f) Governing Law. This First Amendment shall be governed by and construed in accordance with the laws of the Province of Ontario and the laws of Canada applicable in that Province.

(g) Dispute Resolution. If any dispute arises under this First Amendment, such dispute shall be settled in accordance with the dispute resolution procedures contained in Article 12 of the Agreement.

[Signature page follows]

IN WITNESS WHEREOF, the Parties have executed this Amendment which takes effect as of the First Amendment Date.

OTTAWA HOSPITAL RESEARCH INSTITUTE

Per: /s/ Marisa Akow

Name: Marisa Akow

Title: Director, Research Administration

Date: 17 Feb 2012

FATE THERAPEUTICS (CANADA) INC.

Per: /s/ Scott Wolchko

Name: Scott Wolchko

Title: CFO

Date: 14 Feb 2012

Amended Exhibit A
Licensed Technology/Licensed Patents

[[***]

* Confidential Information, indicated by [***], has been omitted from this filing and filed separately with the Securities and Exchange Commission

Exhibit 10.13

Second Amendment to Restated License Agreement

This Second Amendment (hereafter. this "Second Amendment") amends the Restated License Agreement having an Effective Date of April 6, 2010, as amended by the First Amendment dated February 14, 2012 (together, the "Agreement") between Fate Therapeutics (Canada) Inc. (successor to Verio Therapeutics, Inc. and herein referred to as "Fate Canada" or "Licensee") and the Ottawa Hospital Research Institute ("OHRI" or "Licensor"). This Second Amendment shall be effective as of June 3, 2013 (the "Second Amendment Date"). Licensee and Licensor shall each individually be referred to as a "Party", and shall be referred to together as the "Parties".

All capitalized terms that are used in this Second Amendment and not defined herein shall have the meanings ascribed to them in the Agreement. Except as specifically modified by this Second Amendment, the Parties hereto agree that all of the terms and conditions set forth in the Agreement remain in full force and effect.

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereby agree, and amend the Agreement, as follows:

1. Article 12 of the Agreement is amended by the addition of a new Section 12.11:

"**Section 12.11 Extension to Affiliates.** Licensee shall have the right to extend the rights, licenses, immunities and obligations granted in this Agreement to one or more of its Affiliates, including specifically Fate Therapeutics, Inc. All applicable terms and provisions of this Agreement shall apply to any such Affiliate to which this Agreement has been extended to the same extent as such terms and provisions apply to Licensee. Licensee shall remain fully liable for any acts or omissions of such Affiliates."

2. Miscellaneous

(a) Survival. Each of the Parties hereto acknowledges that all terms and conditions of the Agreement remain in full force and effect, except as amended hereby.

(b) Entire Agreement. The Agreement and this Second Amendment, constitute the entire agreement and understanding between Licensor and Licensee relating to the subject hereof.

(c) Further Assurances. Each Party covenants that at any time, and from time to time, after this Second Amendment Date, it will execute such additional instruments and take such actions as may be reasonably requested by the other Party to confirm or perfect or otherwise to carry out the intent and purposes of this Second Amendment.

(d) Successors and Permitted Assigns. This Second Amendment shall inure to the benefit of and be binding upon the successors, the Parties and their respective successors and permitted assigns.

(e) Counterparts. This Second Amendment may be executed in any number of counterparts, with the same effect as if the Parties had signed one original copy of this document. All counterparts shall be construed as if they constituted one and the same original document.

(f) Governing Law. This Second Amendment shall be governed by and construed in accordance with the laws of the Province of Ontario and the laws of Canada applicable in that Province.

(g) Dispute Resolution. If any dispute arises under this Second Amendment, such dispute shall be settled in accordance with the dispute resolution procedures contained in Article 12 of the Agreement.

[Signature page follows]

IN WITNESS WHEREOF, the Parties have executed this Second Amendment which takes effect as of the Second Amendment Date.

OTTAWA HOSPITAL RESEARCH INSTITUTE

Per: /s/ Marisa Akow

Name: Marisa Akow

Title: Director Research Administration

Date: June 4/13

FATE THERAPEUTICS (CANADA) INC.

Per: /s/ Scott Wolchko

Name: Scott Wolchko

Title: Secretary

Date: 4 June 2013

EXHIBIT 10.14

LEASE AGREEMENT

THIS LEASE AGREEMENT (this "**Lease**") is made this 3 day of December, 2009, between **ARE-3535/3565 GENERAL ATOMICS COURT, LLC**, a Delaware limited liability company ("**Landlord**"), and **FATE THERAPEUTICS, INC**., a Delaware corporation ("**Tenant**").

Building: 3535 General Atomics Court, San Diego, California 92121

Premises: That portion of the Project containing approximately 23,640 rentable square feet, consisting of (i) approximately 18,813 rentable square feet located on the western half of the second floor of the Building ("**Second Floor Premises**"), and (ii) approximately 4,827 rentable square feet located on the first floor of the Building ("**First Floor Premises**"), all as determined by Landlord, as shown on **Exhibit A**. The rentable square footage of the Premises is subject to adjustment as provided for in Section 5 hereof.

Project: The real property on which the Building in which the Premises are located, together with all improvements thereon and appurtenances thereto as described on **Exhibit B**.

Base Rent:

Months 1 - 12:	$2.85 per rentable square foot per month
Months 13 - 24:	$2.95 per rentable square foot per month
Months 25 - 36:	$3.05 per rentable square foot per month
Months 37 - 48:	$3.15 per rentable square foot per month

Rentable Area of Premises: 23,640 sq. ft., subject to adjustment as provided for in Section 5 hereof.

Rentable Area of Building: 76,084 sq. ft.

Rentable Area of Project: 119,684 sq. ft. **Building's Share of Project**: 63.57%

Tenant's Share of Operating Expenses for Building: 31.07%, subject to adjustment as provided for in Section 5 hereof.

Tenant's Share of Operating Expenses for Project: 19.75%, subject to adjustment as provided for in Section 5 hereof.

Security Deposit: $72,102

Target Commencement Date: The date that is 27 weeks after the mutual execution and delivery of this Lease by the parties.

Base Term: Beginning on the Commencement Date and ending 48 months from the first day of the first full month of the Term (as defined in Section 2) hereof.

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 Section 7 hereof.

Address for Rent Payment:

P.O. Box 975383
Dallas, TX 75397-5383

Landlord's Notice Address:

385 E. Colorado Boulevard, Suite 299
Pasadena, CA 91101
Attention: Corporate Secretary

Tenant's Notice Address:

3535 General Atomics Court
San Diego, California 92121
Attention: Chief Financial Officer

The following Exhibits and Addenda are attached hereto and incorporated herein by this reference:

☒ **EXHIBIT A** - PREMISES DESCRIPTION

☒ **EXHIBIT B** - DESCRIPTION OF PROJECT

☒ **EXHIBIT C** - WORK LETTER

☒ **EXHIBIT D** - COMMENCEMENT DATE

☒ **EXHIBIT E** -RULES AND REGULATIONS

☒ **EXHIBIT F** - REMOVABLE INSTALLATIONS

☒ **EXHIBIT G** - TEMPORARY PREMISES

☒ **EXHIBIT H** - LANDLORD'S TEMPORARY PREMISES WORK

☒ **EXHIBIT I** - ASBESTOS DISCLOSURE

☒ **EXHIBIT J** - EXPANSION SPACE

☒ **EXHIBIT K** - EXPANSION SPACE WORK LETTER

1. Lease of Premises. 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 which are for the non-exclusive use of tenants of the Project are collectively referred to herein as the "**Common Areas**." Landlord reserves the right to modify Common Areas, provided that such modifications do not materially adversely affect Tenant's use of the Premises for the Permitted Use. The first time after the date hereof that Landlord intends to make cosmetic improvements to the interior Common Areas of the Building, the entry to the Building and adjacent landscape, Tenant shall have the right to provide Landlord with input regarding Landlord's proposed cosmetic improvements; provided, however, that any final decisions with respect to such cosmetic improvements shall be made by Landlord in Landlord's sole and absolute discretion.

2. Delivery; Acceptance of Premises; Commencement Date. Landlord shall use reasonable efforts to deliver the Premises to Tenant on or before the Target Commencement Date, with Landlord's Work, if any, Substantially Completed ("**Delivery**" or "**Deliver**"). If Landlord fails to timely Deliver the Premises, Landlord shall not be liable to Tenant for any loss or damage resulting therefrom, and this Lease shall not be void or voidable except as provided herein. If Landlord does not Deliver the Premises within 90 days of the Target Commencement Date for any reason other than Force Majeure delays and Tenant Delays, this Lease may be terminated by Tenant by written notice to Landlord, and if so terminated by Tenant: (a) 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, and (b) neither Landlord nor Tenant shall have any further rights, duties or obligations under this Lease, except with respect to provisions which expressly survive termination of this Lease. As used herein, the terms "**Landlord's Work**," "**Tenant's Work**," "**Tenant Delays**" and "**Substantially Completed**" shall have the meanings set forth for such terms in the Work Letter. If Tenant does not elect to void this Lease within 5 business days of the lapse of such 90 day period, such right to terminate this Lease shall be waived and this Lease shall remain in full force and effect.

The "**Commencement Date**" shall be the earliest of: (i) the date Landlord Delivers the Premises to Tenant; (ii) the date Landlord could have Delivered the Premises but for Tenant Delays; and (iii) the

date Tenant conducts any business in the Premises or any part thereof. Upon request of Landlord, Tenant shall execute and deliver a written acknowledgment of the 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 D**; 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 the Base Term, as defined above on the first page of this Lease, and the Extension Term, if any, which Tenant may elect pursuant to Section 40 hereof.

Except as set forth in the Work Letter or as otherwise set forth in this Lease, if applicable: (i) Tenant shall accept the Premises in their condition as of the Commencement Date, subject to 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, except the obligation to pay Base Rent.

Tenant agrees and acknowledges that, except as otherwise set forth in this Lease, 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. Landlord in executing this Lease does so in reliance upon Tenant's representations, warranties, acknowledgments and agreements contained herein.

3. Rent.

(a) **Base Rent**. Base Rent in the amount of $42,750 and the Security Deposit shall be due and payable on delivery of an executed copy of this Lease to Landlord. Tenant shall pay to Landlord in advance, without demand, abatement, deduction or set-off, 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 of Landlord for payment of Rent set forth above, or to such other person or at such other place as Landlord may from time to time designate in writing. Payments of Base Rent for any fractional calendar month shall be prorated. The obligation of Tenant to pay Base Rent and other sums to Landlord and the obligations of Landlord under this Lease are independent obligations. Tenant shall have no right at any time to abate, reduce, or set-off any Rent (as defined in Section 5) due hereunder except for any abatement as may be expressly provided in this Lease.

Notwithstanding anything to the contrary contained in this Lease, Tenant shall be required to pay Base Rent in the per square foot amounts set forth in page 1 (i) with respect to only 15,000 rentable square feet of the Premises commencing on the Commencement Date and continuing through the expiration of the 18th month of the Base Term, and (ii) with respect to only 19,000 rentable square feet of the Premises commencing on the first day of the 19th month of the Base Term and continuing through the expiration of the 24th month of the Base Term. Tenant shall commence paying Base Rent with respect to the entire Premises on the first day of the 25th month of the Base Term.

Notwithstanding anything to the contrary contained herein, so long as no monetary default by Tenant beyond applicable notice and cure periods is occurring as of the expiration of the term of that certain Lease Agreement between Tenant and ARE-10933 North Torrey Pines, LLC, a Delaware limited liability, dated July 31, 2009 (as the same may have been or may in the future be amended, the "**Other**

Lease"), Landlord shall provide Tenant with a credit in the amount of $221,336 ("**Rent Credit**") toward Base Rent and Operating Expenses for the Premises first coming due during the Base Term. Tenant shall commence paying Base Rent and Operating Expenses for the Premises upon the earlier of (i) the exhaustion of the Rent Credit, or (ii) immediately following delivery of written notice from Landlord providing that a monetary default by Tenant beyond applicable notice and cure periods is occurring as of the expiration of the term of the Other Lease.

(b) **Additional Rent**. In addition to Base Rent, Tenant agrees to pay to Landlord as additional rent ("**Additional Rent**"): (i) Tenant's Share of "Operating Expenses" (as defined in Section 5), 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.

4. Base Rent Adjustments. Base Rent shall be increased during the Base Term as provided for in the schedule set forth on page 1 of this Lease. Base Rent, as so adjusted, shall thereafter be due as provided herein. Base Rent adjustments for any fractional calendar month shall be prorated.

5. Operating Expense Payments. Landlord shall deliver to Tenant a written estimate of Operating Expenses for each calendar year during the Term (the "**Annual Estimate**"), which may be revised by Landlord from time to time during such calendar year. During each month of the Term, on the same date that Base Rent is due, Tenant shall pay Landlord an amount equal to 1/12th of Tenant's Share of the Annual Estimate. Payments for any fractional calendar month shall be prorated.

The term "**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 Building (including the Building's Share of all costs and expenses of any kind or description incurred or accrued by Landlord with respect to the Project which are not specific to the Building or any other building located in the Project) (including, without duplication, Taxes (as defined in Section 9), capital repairs and replacements amortized over the lesser of ten (10) 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 3.0% of Base Rent), 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;

(c) interest, principal payments of Mortgage (as defined in Section 27) debts of Landlord, financing costs and amortization of funds borrowed by Landlord, whether secured or unsecured;

(d) depreciation of the Project (except for capital improvements, the cost of which are includable in Operating Expenses);

(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 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;

(i) 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;

(j) 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;

(k) 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;

(l) 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 7);

(m) 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;

(n) 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;

(o) costs of Landlord's charitable or political contributions, or of fine art maintained at the Project;

(p) 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;

(q) costs incurred in the sale or refinancing of the Project;

(r) 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; and

(s) any expenses otherwise includable within Operating Expenses to the extent actually reimbursed by persons other than tenants of the Project under leases for space in the Project.

Within ninety (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 total and Tenant's Share of actual Operating Expenses for the previous calendar year, and (b) the total of Tenant's payments in respect of Operating Expenses for such year. If Tenant's Share of actual Operating Expenses for such year exceeds Tenant's payments of Operating Expenses for such year, the excess shall be due and payable by Tenant as Rent within thirty (30) days after delivery of such Annual Statement to Tenant. If Tenant's payments of Operating Expenses for such year exceed Tenant's Share of actual Operating Expenses for such year Landlord shall pay the excess to Tenant within thirty (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 sixty (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 sixty (60) day period, Tenant reasonably and in good faith questions or contests the accuracy of Landlord's statement of Tenant's Share of 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 Operating Expenses, then Tenant shall have the right to have regionally recognized independent public accounting firm selected by Tenant and approved by Landlord (which approval shall not be unreasonably withheld or delayed), working pursuant to a fee arrangement other than a contingent fee (at Tenant's sole cost and expense) 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 Operating Expenses for the calendar year in question exceeded Tenant's Share of Operating Expenses for such calendar year, 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 other amounts due Landlord. If the Independent Review shows that Tenant's payments with respect to Operating Expenses for such calendar year were less than Tenant's Share of Operating Expenses for the calendar year, 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 Operating Expenses by more than 5% then Landlord shall reimburse Tenant for all costs incurred by Tenant for the Independent Review. Tenant shall treat the results of each Independent Review as confidential and shall not disclose any information regarding such Independent Review to any other tenants. Operating Expenses for the calendar years in which Tenant's obligation to share therein begins and ends shall be prorated. Notwithstanding anything set forth herein to the contrary, if the Building is not at least 95% occupied on average during any year of the Term, Tenant's Share of Operating Expenses for such year shall be computed as though the Building had been 95% occupied on average during such year.

"**Tenant's Share**" shall be the percentage set forth on the first page of this Lease as Tenant's Share as reasonably adjusted by Landlord following a measurement of the rentable square footage of the Premises to be done by Landlord within 90 days of the Commencement Date, or as soon as reasonably possible thereafter; provided, however, that in no event shall the rentable square footage of the Premises exceed 24,000 rentable square feet. "**Tenant's Share**" shall be subject to further adjustment for changes in the physical size of the Premises or the Project occurring thereafter. Any such measurement shall be performed in accordance with the modified 1996 Standard Method of Measuring Floor Area in Office Buildings as adopted by the Building Owners and Managers Association (ANSI/BOMA Z65.1-1996). 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. Base Rent, Tenant's Share of Operating Expenses and all other amounts payable by Tenant to Landlord hereunder are collectively referred to herein as "**Rent**."

6. 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 on page 1 of this Lease, 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 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 in the state of Landlord's choice. If Tenant does not provide Landlord with a substitute Letter of Credit complying with all of the requirements hereof at least ten (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. The Security Deposit shall be held by Landlord as security for the performance of Tenant's obligations under this Lease. The Security Deposit is not 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 20), Landlord may use all or any part of the Security Deposit to pay delinquent payments due under this Lease, future rent damages under California Civil Code Section 1951.2, 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. Landlord's right to use the Security Deposit under this Section 6 includes the right to use the Security Deposit to pay future rent damages following the termination of this Lease pursuant to Section 21(c) below. Upon any use of all or any portion of the Security Deposit, Tenant shall pay Landlord on demand the amount that will restore the Security Deposit to the amount set forth on Page 1 of this Lease. Tenant hereby waives the provisions of any law, now or hereafter in force, including, without limitation, California Civil Code Section 1950.7, 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 bankruptcy or other debtor-creditor proceedings against Tenant, the Security Deposit shall be deemed to be applied first to the payment of Rent and other charges due Landlord for periods prior to the filing of such proceedings. Upon any such use of all or any portion of the Security Deposit, Tenant shall, within five (5) days after demand from Landlord, restore the 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 ninety (90) days after the expiration or earlier termination of this Lease.

If Landlord transfers its interest in the Project or this Lease, Landlord shall either (a) transfer any Security Deposit then held by Landlord to a person or entity assuming Landlord's obligations under this Section 6, or (b) return to Tenant any Security Deposit then held by Landlord and remaining after the deductions permitted herein. Upon such transfer to such transferee or the return of the Security Deposit to Tenant, Landlord shall have no further obligation with respect to the Security Deposit, and Tenant's right to the return of the Security Deposit shall apply solely against Landlord's transferee. The Security Deposit is not an advance rental deposit or a measure of Landlord's damages in case of Tenant's default. Landlord's obligation respecting the Security Deposit is that of a debtor, not a trustee, and no interest shall accrue thereon.

7. Use. The Premises shall be used solely for the Permitted Use set forth in the basic lease provisions on page 1 of this Lease, and in compliance with all laws, orders, judgments, ordinances, regulations, codes, directives, permits, licenses, covenants and restrictions now or hereafter applicable to the Premises, and to the use and occupancy thereof, including, without limitation, the Americans With Disabilities Act, 42 U.S.C. § 12101, et seq. (together with the regulations promulgated pursuant thereto, "**ADA**") (collectively, "**Legal Requirements**" and each, a "**Legal Requirement**"). Tenant shall, upon five (5) business days' written notice from Landlord, discontinue any use of the Premises which is declared by any Governmental Authority (as defined in Section 9) having jurisdiction to be a violation of a Legal Requirement. Tenant will not use or permit the Premises to be used for any purpose or in any manner that would void Tenant's or Landlord's insurance, increase the insurance risk, or cause the disallowance of any sprinkler or other credits. Tenant shall not permit any part of the Premises to be used as a "place of public accommodation", as defined in the ADA or any similar legal requirement. Tenant shall reimburse Landlord promptly upon demand for any additional premium charged for any such insurance policy by reason of Tenant's failure to comply with the provisions of this Section or otherwise caused by Tenant's use and/or occupancy of the Premises. Tenant will use the Premises in a careful, safe and proper manner and will not commit or permit 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. Tenant shall cause any equipment or machinery to be installed in the Premises so as to reasonably prevent sounds or vibrations from the Premises from extending into Common Areas, or other space in the Project. Tenant shall not place any machinery or equipment weighing 500 pounds or more in or upon the Premises or transport or move such items through the Common Areas of the Project or in the Project elevators without the prior written consent of Landlord, which shall not be unreasonably withheld. Except as may be provided under the Work Letter, Tenant shall not, without the prior written consent of Landlord, use the Premises in any manner which will require ventilation, air exchange, heating, gas, steam, electricity or water beyond the existing capacity of the Project as proportionately allocated to the Premises based upon Tenant's Share as usually furnished for the Permitted Use.

Landlord shall be responsible, at Landlord's sole cost, for the compliance of the Premises and the Common Areas of the Project with Legal Requirements as of the Commencement Date. Thereafter, Landlord shall be responsible, subject to reimbursement as part of Operating Expenses, for the compliance of the Common Areas of the Project with Legal Requirements first applicable to the Project following the Commencement Date, except to the extent arising from Tenant's Alterations or Tenant's particular use or occupancy of the Premises, in which case Tenant shall be responsible for the same. Subject to the requirements of the Work Letter, Tenant, at its sole expense, shall make any alterations or modifications to the interior or the exterior of the Premises or the Project that are required by Legal Requirements (including, without limitation, compliance of the Premises with the ADA) related to Tenant's Alterations or Tenant's use or occupancy of the Premises during the Term. Notwithstanding any other provision herein to the contrary, Tenant shall be responsible for any and all demands, claims, liabilities, losses, costs, expenses, actions, causes of action, damages or judgments, and all reasonable expenses incurred in investigating or resisting the same (including, without limitation, reasonable attorneys' fees, charges and disbursements and costs of suit) (collectively, "**Claims**") arising out of or in connection with Legal Requirements related to Tenant's Alterations or Tenant's use or occupancy of the Premises during the Term, and Tenant shall indemnify, defend, hold and save Landlord harmless from and against any and all Claims arising out of or in connection with any failure of the Premises to comply with any Legal Requirement related to Tenant's use or occupancy of the Premises during the Term.

8. Holding Over. If, with Landlord's express written consent, Tenant retains possession of the Premises after the termination of the Term, (i) unless otherwise agreed in such written consent, such

possession shall be subject to immediate termination by Landlord at any time, (ii) all of the other terms and provisions of this Lease shall remain in full force and effect (excluding any expansion or renewal option or other similar right or option) during such holdover period, (iii) Tenant shall continue to pay Base Rent in the amount payable upon the date of the expiration or earlier termination of this Lease or such other amount as Landlord may indicate, in Landlord's sole and absolute discretion, in such written consent, and (iv) all other payments shall continue under the terms of this Lease. 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 200% of Rent in effect during the last thirty (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 consequential damages. No holding over by Tenant, whether with or without consent of Landlord, shall operate to extend this Lease except as otherwise expressly provided, and this Section 8 shall not be construed as consent for Tenant to retain possession of the Premises. 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.

9. Taxes. 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 or the Project, or (iii) assessed or imposed by or on the operation or maintenance of any portion of the Premises or the Project, including 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. If any such Tax is levied or assessed directly against Tenant, then Tenant shall be responsible for and shall pay the same at such times and in such manner as the taxing authority shall require. 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.

10. Parking. Subject to all matters of record, Force Majeure, a Taking (as defined in Section 19 below) and the exercise by Landlord of its rights hereunder, Tenant shall have the right, in common with other tenants of the Project pro rata in accordance with the rentable area of the Premises and the rentable areas of the Project occupied by such other tenants, to park in those areas designated for non-reserved parking at no additional cost to Tenant under this Lease during the Term, subject in each case to Landlord's rules and regulations. Tenant's pro rata share of parking spaces shall include 11 unreserved covered parking spaces. Landlord may allocate parking spaces among Tenant and other tenants in the

Project pro rata as described above if Landlord determines that such parking facilities are becoming crowded. Landlord shall not be responsible for enforcing Tenant's parking rights against any third parties, including other tenants of the Project.

11. Utilities, Services. Landlord shall provide, subject to the terms of this Section 11, water, electricity, heat, light, power, sewer, and other utilities (including gas and fire sprinklers to the extent the Project is plumbed for such services), 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. Landlord may cause, at Tenant's expense, any 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 other than Landlord's willful misconduct, 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. Utilities shall be available to the Premises 24 hours per day, 7 days per week, except in the case of emergencies, as the result of Legal Requirements, the failure of any Utility provider to provide such Utilities, the performance by Landlord or any Utility provider of any installation, maintenance or repairs, or any other temporary interruptions. Notwithstanding the foregoing, Tenant shall be responsible for obtaining its own janitorial services for the Premises.

Landlord's sole obligation for either providing emergency generators or providing emergency back-up power to Tenant shall be: (i) to provide emergency generators with not less than the capacity of the emergency generators located in the Building as of the Commencement Date, and (ii) to contract with a third party to maintain the emergency generators as per the manufacturer's standard maintenance guidelines. With the exception of Landlord's obligations as set forth above, Landlord shall have no obligation to provide Tenant with operational emergency generators or back-up power or to supervise, oversee or confirm that the third party maintaining the emergency generators is maintaining the generators as per the manufacturer's standard guidelines or otherwise. During any period of replacement, repair or maintenance of the emergency generators when the emergency generators are not operational, including any delays thereto due to the inability to obtain parts or replacement equipment, Landlord shall have no obligation to provide Tenant with an alternative back-up generator or generators or alternative sources of back-up power. Landlord shall provide with Tenant 48 hours advance notice of any stoppage in the service of the emergency generator by Landlord for planned repairs.

12. Alterations and 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 then by ordinary plugs or jacks) to Building Systems (as defined in Section 13) ("**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. 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 sole and absolute discretion. Any request for approval shall be in writing, delivered not less than fifteen (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, on demand an amount equal to 3% of all charges incurred by Tenant or its contractors or agents in connection with any Alteration to cover Landlord's overhead and expenses for plan review, coordination, scheduling and supervision. 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.

Except for Removable Installations (as hereinafter defined), all Installations (as hereinafter defined) 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. Notwithstanding the foregoing, Landlord may, at the time its approval of any such Installation is requested, notify Tenant that Landlord requires that Tenant remove such Installation upon the expiration or earlier termination of the Term, in which event Tenant shall remove such Installation in accordance with the immediately succeeding sentence. Upon the expiration or earlier termination of the Term, Tenant shall remove (i) all wires, cables or similar equipment which Tenant has installed in the Premises or in the risers or plenums of the Building, (ii) any Installations for which Landlord has given Tenant notice of removal in accordance with the immediately preceding sentence, and (iii) all of Tenant's Property (as hereinafter defined), and Tenant shall restore and repair any damage caused by or occasioned as a result of such removal, including, without limitation, capping off all such connections behind the walls of the Premises and repairing any holes. During any restoration period beyond the expiration or earlier termination of the Term, Tenant shall pay Rent to Landlord as provided herein as if said space were otherwise occupied by Tenant. If Landlord is requested by Tenant or any lender, lessor or other person or entity claiming an interest in any of Tenant's Property to waive any lien Landlord may have against any of Tenant's Property, and Landlord consents to such waiver, then Landlord shall be entitled to be paid as administrative rent an amount equal to the actual costs incurred by Landlord in connection with such lien waiver, not to exceed $1,000 per occurrence for its time and effort in preparing and negotiating such waiver of lien.

For purposes of this Lease, (x) "**Removable Installations**" means any items listed on **Exhibit F** attached hereto and any items approved by Landlord in writing to be included on **Exhibit F** in the future, (y) "**Tenant's Property**" means Removable Installations and, other than Installations, any personal property or equipment of Tenant, including trade equipment which are not paid for in whole or in part by Landlord, that may be removed without material damage to the Premises, and (z) "**Installations**" means all property of any kind paid for with the TI Fund, all Alterations, all fixtures, and all partitions, hardware, built-in machinery, built-in casework and cabinets and other similar additions, equipment, property and

improvements built into the Premises so as to become an integral part of the Premises, including, without limitation, 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, chillers, built-in plumbing, electrical and mechanical equipment and systems, and any power generator and transfer switch.

13. Landlord's Repairs. Landlord, as an Operating Expense (except to the extent prohibited under Section 5 above), 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 (collectively, "**Tenant Parties**") excluded. Losses and damages caused by Tenant or any Tenant Party shall be repaired by Landlord, to the extent not covered by insurance, at Tenant's sole cost and expense. Landlord reserves the right to stop Building Systems services when necessary (i) by reason of accident or emergency, or (ii) for planned repairs, alterations or improvements, which are, in the judgment of Landlord, desirable or necessary to be made, until said repairs, alterations or improvements shall have been completed. Landlord shall have no responsibility or liability for failure to supply Building Systems services during any such period of interruption; provided, however, that Landlord shall, except in case of emergency, make a commercially reasonable effort to give Tenant twenty-four (24) hours advance notice of any planned stoppage of Building Systems services for routine maintenance, repairs, alterations or improvements. Tenant shall promptly give Landlord written notice of any repair required by Landlord pursuant to this Section, after which Landlord shall make a commercially reasonable effort to effect such repair. 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 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 18.

14. Tenant's Repairs. Subject to Section 13 hereof, Tenant, at its expense, shall repair, replace and maintain all portions of the Premises during the Term in such condition as delivered to Tenant by Landlord, reasonable wear and tear and damage by fire or other casualty excepted, 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 ten (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 ten (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 Sections 17 and 18, 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.

15. Mechanic's Liens. Tenant shall discharge, by bond or otherwise, any mechanic's lien filed against the Premises or against the Project for work claimed to have been done for, or materials claimed to have been furnished to, Tenant within ten (10) days after written notice to Tenant of the filing thereof, at Tenant's sole cost and shall otherwise keep the Premises and the Project free from any liens arising out of work performed, materials furnished or obligations incurred by Tenant. Should Tenant fail to discharge any lien described herein, Landlord shall have the right, but not the obligation, to pay such claim or post a bond or otherwise provide security to eliminate the lien as a claim against title to the

Project and the cost thereof shall be immediately due from Tenant as Additional Rent. If Tenant shall lease or finance the acquisition of office equipment, furnishings, or other personal property of a removable nature utilized by Tenant in the operation of Tenant's business, Tenant warrants that any Uniform Commercial Code Financing Statement filed as a matter of public record by any lessor or creditor of Tenant will upon its face or by exhibit thereto indicate that such Financing Statement is applicable only to removable personal property of Tenant located within the Premises. In no event shall the address of the Project be furnished on the statement without qualifying language as to applicability of the lien only to removable personal property, located in an identified suite held by Tenant.

16. 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 occurring within or about the Premises, arising directly or indirectly out of use or occupancy of the Premises during the Term or any holding over or a breach or default by Tenant in the performance of any of its obligations hereunder, except to the extent caused by the willful misconduct or negligence of Landlord or its agents, employees or contractors. 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). 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.

17. Insurance. Landlord shall maintain all risk property and, if applicable, sprinkler damage insurance covering the full replacement cost of the Project or such lesser coverage amount as Landlord may elect provided such coverage amount is not less than 90% of such full replacement cost. Landlord shall further procure and maintain commercial general liability insurance with a single loss limit of not less than $2,000,000 for bodily injury and property damage with respect to the Project. Landlord may, but is not obligated to, maintain such other insurance and additional coverages as it may deem necessary, including, but not limited to, flood, environmental hazard and earthquake, loss or failure of building equipment, errors and omissions, rental loss during the period of repair or rebuilding, workers' compensation insurance and fidelity bonds for employees employed to perform services and insurance for any improvements installed by Tenant or which are in addition to the standard improvements customarily furnished by Landlord without regard to whether or not such are made a part of the Project. All such insurance shall be included as part of the Operating Expenses. The Project may be included in a blanket policy (in which case the cost of such insurance allocable to the Project will be determined by Landlord based upon the insurer's cost calculations). Tenant shall also reimburse Landlord for any increased premiums or additional insurance which Landlord reasonably deems necessary as a result of Tenant's use of the Premises.

Tenant, at its sole cost and expense, shall maintain during the Term: Special Form 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, which coverage amount may be satisfied through a combination of primary and umbrella policies. The commercial general liability insurance policy shall name Alexandria Real Estate Equities, Inc., and Landlord, its officers, directors, employees, managers, agents, invitees and contractors (collectively, "**Landlord Parties**"), 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 VII in "Best's Insurance Guide"; shall not be cancelable for nonpayment of premium unless thirty (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 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 five (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, (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, 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.

Landlord may require insurance policy limits to be raised to conform with requirements of Landlord's lender and/or to bring coverage limits to levels then being generally required of new tenants within the Project; provided, however, that the increased amount of coverage is consistent with coverage amounts then being required by institutional owners of similar projects with tenants occupying similar size premises in the geographical area in which the Project is located.

18. Restoration. If, at any time during the Term, the Project or the Premises are damaged or destroyed by a fire or other insured casualty, Landlord shall notify Tenant within sixty (60) days after discovery of such damage as to the amount of time Landlord reasonably estimates it will take to restore the Project or the Premises, as applicable (the "**Restoration Period**"). If the Restoration Period is estimated to exceed twelve (12) months (the "**Maximum Restoration Period**"), Landlord may, in such notice, elect to terminate this Lease as of the date that is the later of: (i) seventy-five (75) days after the discovery of such damage or destruction, or (ii) the date all required Hazardous Materials Clearances, if applicable, are obtained; provided, however, that notwithstanding Landlord's election to restore, Tenant may elect to terminate this Lease by written notice to Landlord delivered within five (5) business days of receipt of a notice from Landlord estimating a Restoration Period for the Premises longer than the Maximum Restoration Period. 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 (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 30) in, on or about the Premises (collectively referred to herein as "**Hazardous Materials Clearances**"); provided, however, that if repair or restoration of the Premises is not substantially complete as of the end of the Maximum Restoration Period or, if longer, the Restoration Period, Landlord may, in its sole and absolute discretion, elect not to proceed with such repair and restoration, in which event Landlord shall be relieved of its obligation to make such repairs or restoration, or Tenant may by written notice to Landlord delivered within five (5) business days of the expiration of the Maximum Restoration Period or, if longer, the Restoration Period, elect to terminate this Lease and this Lease shall terminate as of the date is the later of: (i) expiration of the Maximum Restoration Period or, if longer, the Restoration Period, or (ii) the date all required Hazardous Materials Clearances, if applicable, are obtained, but Landlord shall retain any Rent paid and the right to any Rent payable by Tenant prior to such election by Landlord or Tenant.

Tenant, at its expense, shall promptly perform, subject to delays arising from the collection of insurance proceeds, from Force Majeure (as defined in Section 34) events or to obtain Hazardous Material Clearances, all repairs or restoration not required to be done by Landlord and shall promptly re-enter the Premises and commence doing business in accordance with this Lease. Notwithstanding the foregoing, either Landlord or Tenant may terminate this Lease upon written notice to the other if the Premises are damaged during the last year of the Term and Landlord reasonably estimates that it will take more than two (2) months to repair such damage; provided, however, that such notice is delivered within 10 business days after the date that Landlord provides Tenant with written notice of the estimated Restoration Period. Landlord shall also have the right to terminate this Lease if insurance proceeds are not available for such restoration provided that Landlord has maintained the insurance required to be maintained by Landlord under this Lease. Rent shall be abated from the date all required Hazardous Material Clearances are obtained until the Premises 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 18, Tenant waives any right to terminate the Lease by reason of damage or casualty loss.

The provisions of this Lease, including this Section 18, 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 18 sets forth their entire understanding and agreement with respect to such matters.

19. Condemnation. If the whole or any material part of the Premises or the Project is 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**" or "**Taken**"), and the Taking would in Landlord's reasonable judgment, either prevent or materially interfere with Tenant's use of the Premises or materially interfere with or impair Landlord's ownership or operation of the Project, then upon written notice by Landlord this Lease shall terminate and Rent shall be apportioned as of said date. If part of the Premises shall be Taken, and this Lease is not terminated as provided above, Landlord shall promptly restore the Premises and the Project as nearly as is commercially reasonable under the circumstances to their condition prior to such partial Taking and the rentable square footage of the Building, the rentable square footage of the Premises, Tenant's Share of Operating Expenses and the Rent payable hereunder

during the unexpired Term shall be reduced to such extent as may be fair and reasonable under the circumstances. Upon any such Taking, Landlord shall be entitled to receive the entire price or award from any such Taking without any payment to Tenant, and Tenant hereby assigns to Landlord Tenant's interest, if any, in such award. 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. Tenant hereby waives any and all rights it might otherwise have pursuant to any provision of state law to terminate this Lease upon a partial Taking of the Premises or the Project.

20. 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 written notice and an opportunity to cure any failure to pay Rent within 5 business days of any such notice not more than twice 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.

(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 twenty (20) days before the expiration of the current coverage.

(c) **Abandonment**. Tenant shall abandon the Premises.

(d) **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 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 ninety (90) days of the action.

(e) **Liens**. Tenant shall fail to discharge or otherwise obtain the release of any lien placed upon the Premises in violation of this Lease within ten (10) days after any such lien is filed against the Premises.

(f) **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 ninety (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).

(g) **Estoppel Certificate or Subordination Agreement**. Tenant fails to execute any document required from Tenant under Sections 23 or 27 within five (5) days after a second notice requesting such document.

(h) **Other Defaults**. Tenant shall fail to comply with any provision of this Lease other than those specifically referred to in this Section 20, and, except as otherwise expressly provided herein, such failure shall continue for a period of ten (10) business days after written notice thereof from Landlord to Tenant.

Any notice given under Section 20(h) hereof 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; provided that if the nature of Tenant's default pursuant to Section 20(h) is such that it cannot be cured by the payment of money and reasonably requires more than ten (10) business days to cure, then Tenant shall not be deemed to be in default if Tenant commences such cure within said ten (10) business day period and thereafter diligently prosecutes the same to completion; provided, however, that such cure shall be completed no later than forty-five (45) days from the date of Landlord's notice.

21. 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. 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 five (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) Remedies. Upon the occurrence 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 any one or more of the following remedies, each and all of which shall be cumulative and nonexclusive, without any notice or demand whatsoever.

(i) Terminate this Lease, or at Landlord's option, Tenant's right to possession only, in which event Tenant shall immediately surrender the Premises to Landlord, and if Tenant fails to do so, Landlord may, without prejudice to any other remedy which it may have for possession or arrearages in rent, enter upon and take possession of the Premises and expel or remove Tenant and any other person who may be occupying the Premises or any part thereof, without being liable for prosecution or any claim or damages therefor;

(ii) Upon any termination of this Lease, whether pursuant to the foregoing Section 21 (c)(i) or otherwise, Landlord may recover from Tenant the following:

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

(B) The worth at the time of award of the amount by which the unpaid rent which would have been earned after termination until the time of award exceeds the amount of such rental loss that Tenant proves could have been reasonably avoided; plus

(C) The worth at the time of award of the amount by which the unpaid rent for the balance of the Term after the time of award exceeds the amount of such rental loss that Tenant proves could have been reasonably avoided; plus

(D) Any other amount necessary to compensate Landlord for all the detriment proximately caused by Tenant's failure to perform its obligations under this Lease or which in the ordinary course of things would be likely to result therefrom, specifically including, but not limited to, brokerage commissions and advertising expenses incurred, expenses of remodeling the Premises or any portion thereof for a new tenant, whether for the same or a different use, and any special concessions made to obtain a new tenant; and

(E) At Landlord's election, such other amounts in addition to or in lieu of the foregoing as may be permitted from time to time by applicable law.

The term "**rent**" as used in this Section 21 shall be deemed to be and to mean all sums of every nature required to be paid by Tenant pursuant to the terms of this Lease, whether to Landlord or to others. As used in Sections 21 (c)(ii) (A) and (B), above, the "**worth at the time of award**" shall be computed by allowing interest at the Default Rate. As used in Section 21 (c)(ii)(C) above, the "**worth at the time of award**" shall be computed by discounting such amount at the discount rate of the Federal Reserve Bank of San Francisco at the time of award plus 1%.

(iii) Landlord may continue this Lease in effect after Tenant's Default and recover rent as it becomes due (Landlord and Tenant hereby agreeing that Tenant has the right to sublet or assign hereunder, subject only to reasonable limitations). Accordingly, if Landlord does not elect to terminate this Lease following a Default by Tenant, Landlord may, from time to time, without terminating this Lease, enforce all of its rights and remedies hereunder, including the right to recover all Rent as it becomes due.

(iv) Whether or not Landlord elects to terminate this Lease following a Default by Tenant, Landlord shall have the right to terminate any and all subleases, licenses, concessions or other consensual arrangements for possession entered into by Tenant and affecting the Premises or may, in Landlord's sole discretion, succeed to Tenant's interest in such subleases, licenses, concessions or arrangements. Upon Landlord's election to succeed to Tenant's interest in any such subleases, licenses, concessions or arrangements, Tenant shall, as of the date of notice by Landlord of such election, have no further right to or interest in the rent or other consideration receivable thereunder.

(v) 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 30(d) hereof, at Tenant's expense.

(d) **Effect of Exercise**. Exercise by Landlord of any remedies hereunder or otherwise available shall not be deemed to be an acceptance of surrender of the Premises and/or a termination of this Lease by Landlord, it being understood that such surrender and/or termination can be effected only by the express written agreement of Landlord and Tenant. Any law, usage, or custom to the contrary notwithstanding, Landlord shall have the right at all times to enforce the provisions of this Lease in strict accordance with the terms hereof; and the failure of Landlord at any time to enforce its rights under this Lease strictly in accordance with same shall not be construed as having created a custom in any way or manner contrary to the specific terms, provisions, and covenants of this Lease or as having modified the same and shall not be deemed a waiver of Landlord's right to enforce one or more of its rights in connection with any subsequent default. A receipt by Landlord of Rent or other payment with knowledge of the breach of any covenant hereof shall not be deemed a waiver of such breach, and no waiver by Landlord of any provision of this Lease shall be deemed to have been made unless expressed in writing and signed by Landlord. To the greatest extent permitted by law, Tenant waives the service of notice of Landlord's intention to re-enter, re-take or otherwise obtain possession of the Premises as provided in any statute, or to institute legal proceedings to that end, and also waives all right of redemption in case Tenant shall be dispossessed by a judgment or by warrant of any court or judge. Any reletting of the Premises or any portion thereof shall be on such terms and conditions as Landlord in its sole discretion may determine. Landlord shall not be liable for, nor shall Tenant's obligations hereunder be diminished because of, Landlord's failure to relet the Premises or collect rent due in respect of such reletting or otherwise to mitigate any damages arising by reason of Tenant's Default.

22. Assignment and Subletting.

(a) **General Prohibition**. Without Landlord's prior written consent subject to and on the conditions described in this Section 22, 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 49% 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 22. Notwithstanding the foregoing, Tenant shall have the right to obtain financing from institutional investors (including venture capital funding and corporate partners) which regularly invest in private biotechnology companies or undergo a public offering which results in a change in control of Tenant without such change of control constituting an assignment under this Section 22 requiring Landlord consent, provided that (i) Tenant notifies Landlord in writing of the financing at least 5 business days prior to the closing of the financing, and (ii) provided that in no event shall such financing result in a change in use of the Premises from the Permitted Use.

(b) **Permitted Transfers**. If Tenant desires to assign, sublease, hypothecate or otherwise transfer this Lease or sublet the Premises other than pursuant to a Permitted Assignment (as defined below), then at least fifteen (15) business days, but not more than forty-five (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, which shall not be unreasonably withheld. Landlord may, by giving written notice to Tenant within fifteen (15) business days after receipt of the Assignment Notice: (i) grant such consent, (ii) refuse such consent, in its reasonable discretion; or (iii) terminate this Lease with respect to the space described in the Assignment Notice as of the Assignment Date (an "**Assignment Termination**"). Among other reasons, it shall be reasonable for Landlord to withhold its consent in any of these instances: (1) the proposed assignee or subtenant is a governmental agency; (2) in Landlord's reasonable judgment, the use of the Premises by the proposed assignee or subtenant would entail any alterations that would lessen the value of the leasehold improvements in the Premises, or would require increased services by Landlord; (3) in Landlord's reasonable judgment, the proposed assignee or subtenant is engaged in areas of scientific research or other business concerns that are controversial; (4) in Landlord's reasonable judgment, the proposed assignee or subtenant lacks the creditworthiness to support the financial obligations it will incur under the proposed assignment or sublease; (5) in Landlord's reasonable judgment, the character, reputation, or business of the proposed assignee or subtenant is inconsistent with the desired tenant-mix or the quality of other tenancies in the Project or is inconsistent with the type and quality of the nature of the Building; (6) Landlord has received from any prior landlord to the proposed assignee or subtenant a negative report concerning such prior landlord's experience with the proposed assignee or subtenant; (7) Landlord has experienced previous defaults by or is in litigation with the proposed assignee or subtenant; (8) the use of the Premises by the proposed assignee or subtenant will violate any applicable Legal Requirement; (9) the proposed assignee or subtenant, or any entity that, directly or indirectly, controls, is controlled by, or is under common control with the proposed assignee or subtenant, is then an occupant of the Project; (10) the proposed assignee or subtenant is an entity with whom Landlord is negotiating to lease space in the Project; or (11) the assignment or sublease is prohibited by Landlord's lender. 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 ten (10) 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 reimburse Landlord for all of Landlord's reasonable out-of-pocket expenses in connection with its consideration of any Assignment Notice. Notwithstanding the foregoing, 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 (a "**Control Permitted Assignment**") shall not be required, provided that (x) Landlord shall have the right to approve the form of any such sublease or assignment, and (y) Tenant and Tenant's assignee or sublessee, as applicable, shall execute an acknowledgment of assignment or acknowledgment of sublease, as applicable, in form and content acceptable to Landlord, in Landlord's reasonable discretion. In addition, Tenant shall have the right to assign this Lease, upon 30 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 (A) 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, (B) 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 the Lease, and (C) 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 (a "**Corporate Permitted Assignment**"). Control Permitted Assignments and Corporate Permitted Assignments are hereinafter referred to as "**Permitted Assignments**."

(c) **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.

(d) **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. Except with respect to a Permitted Assignment, 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, (excluding however, any Rent payable under this Section) and actual and reasonable brokerage fees, legal costs and any design or construction fees directly related to and required pursuant to the terms of any such sublease)("**Excess Rent**"), then Tenant shall be bound and obligated to pay Landlord as Additional Rent hereunder 50% of such Excess Rent within ten (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.

(e) **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.

(f) **Prior Conduct of Proposed Transferee**. Notwithstanding any other provision of this Section 22, 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.

23. Estoppel Certificate. Tenant shall, within ten (10) business days of written notice from Landlord, execute, acknowledge and deliver a statement in writing in any form reasonably requested by a proposed lender or purchaser, (i) certifying that this Lease is unmodified and in full force and effect (or, if modified, stating the nature of such modification and certifying that this Lease as so modified is in full force and effect) and the dates to which the rental and other charges are paid in advance, if any, (ii) acknowledging that there are not any uncured defaults on the part of Landlord hereunder, or specifying such defaults if any are claimed, and (iii) setting forth such further information with respect to the status of this Lease or the Premises as may be requested thereon. Any such statement may be relied upon by any prospective purchaser or encumbrancer of all or any portion of the real property of which the Premises are a part. Tenant's failure to deliver such statement within such time shall, at the option of Landlord, constitute a Default under this Lease, and, in any event, shall be conclusive upon Tenant that the Lease is in full force and effect and without modification except as may be represented by Landlord in any certificate prepared by Landlord and delivered to Tenant for execution.

24. Quiet Enjoyment. So long as Tenant is not in Default under this Lease, 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.

25. Prorations. All prorations required or permitted to be made hereunder shall be made on the basis of a 360 day year and thirty (30) day months.

26. 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 E**. 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.

27. Subordination. This Lease and Tenant's interest and rights hereunder are hereby made 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; provided, however that so long as there is no Default hereunder, as a condition to any future subordination, Tenant's right to possession of the Premises shall not be disturbed by the Holder of any such Mortgage. Tenant agrees, at the election of the Holder of any such Mortgage, to attorn to any such Holder. Tenant agrees upon demand to execute, acknowledge and deliver such instruments, confirming such subordination, and such instruments of attornment as shall be requested by any such Holder, provided any such instruments contain appropriate non-disturbance provisions assuring Tenant's quiet enjoyment of the Premises as set forth in Section 24 hereof. Notwithstanding the foregoing, any such Holder may at any time subordinate its Mortgage to this Lease, without Tenant's consent, by notice in writing to Tenant, and thereupon this Lease shall be deemed prior to such Mortgage without regard to their respective dates of execution, delivery or recording and in that event such Holder shall have the same rights with respect to this Lease as though this Lease had been executed prior to the execution, delivery and recording of such Mortgage and had been assigned to such Holder. The term "**Mortgage**" whenever used in this Lease shall be deemed to include deeds of trust, security assignments 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. As of the date of this Lease, there is no existing Mortgage encumbering the Project.

As a condition to the subordination of this Lease to a future Mortgage, Landlord shall obtain for execution by Tenant a form of subordination, non-disturbance and attornment agreement ("**SNDA**") executed by the Holder of any future Mortgage with a lien on the Project. The SNDA shall be on the form proscribed by the Holder and Tenant shall pay the Holder's fees and costs in connection with obtaining such SNDA; provided, however, that Landlord shall request that Holder make any changes to the SNDA requested by Tenant. Landlord's failure to cause the Holder to make any of the changes requested by Tenant shall not be a default by Landlord under this Lease.

28. 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 such condition as delivered to Tenant by Landlord, reasonably wear and tear and damage by fire or other casualty excepted, subject to any Alterations or Installations permitted by Landlord to remain in the Premises, free of Hazardous Materials brought upon, kept, used, stored, handled, treated, generated in, or released or disposed of from, the Premises during the Term or any holding over by any person other than a Landlord Party (collectively, "**Tenant HazMat Operations**") and released of all Hazardous Materials Clearances, broom clean, ordinary wear and tear and casualty loss and condemnation excepted. At least three (3) 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 (including any Installations permitted by Landlord to remain in 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 current 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 during the Term or any holding over, 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 $2,000. 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 provided, however, that Landlord instructs such parties to treat the same as confidential and, in the case of the Surrender Plan the third party accepts the same subject to a confidentiality agreement or non-disclosure requirement.

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 28.

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 30 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.

29. Waiver of Jury Trial. TO THE EXTENT PERMITTED BY LAW, 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.

30. 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 or 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 during the Term by anyone other than Landlord and Landlord's employees, agents and contractors otherwise occurs during the Term or any holding over, Tenant hereby indemnifies and shall defend and hold Landlord, its officers, directors, employees, agents and contractors 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 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 Building, the Project or any adjacent property caused or permitted by Tenant or any Tenant Party results in any contamination of the Premises, the Building, 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 Building, 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 Building, or the Project. Notwithstanding anything to the contrary contained in Section 28 or this Section 30, Tenant shall not be responsible for, and the indemnification and hold harmless obligation set forth in this paragraph shall not apply to (i) contamination in the Premises which Tenant can prove to Landlord's reasonable satisfaction existed in the Premises immediately prior to the Commencement Date or (ii) the presence of any Hazardous Materials in the Premises which Tenant can prove to Landlord's reasonable satisfaction migrated from outside of the Premises into the Premises, unless in either case, the presence of such Hazardous Materials (x) is the result of a breach by Tenant of any of its obligations under this Lease, or (y) was caused, contributed to or exacerbated by Tenant or any Tenant Party.

(b) **Business**. Landlord acknowledges that it is not the intent of this Section 30 to prohibit Tenant from using the Premises for the Permitted Use. Tenant may operate its business according to prudent industry practices so long as the use or presence of Hazardous Materials is strictly and properly monitored according to all then applicable Environmental Requirements. As a material inducement to Landlord to allow Tenant to use Hazardous Materials in connection with its business, Tenant agrees to deliver to Landlord prior to the Commencement Date 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 Premises 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 least once a year and shall also deliver an updated list before any new Hazardous Material is brought onto, kept, used, stored, handled, treated, generated on, or released or disposed of from, 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, notice of violations of any Legal Requirements; 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 Tenant its written consent to do so, which consent may be withheld in Landlord's sole and absolute discretion); 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; and a Surrender Plan (to the extent surrender in accordance with Section 28 cannot be accomplished in three (3)

months). Tenant is not required, however, to provide Landlord with any portion(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) **Tenant Representation and Warranty**. Tenant hereby represents and warrants to Landlord that (i) neither Tenant nor any of its legal predecessors has been required by any prior landlord, lender or Governmental Authority at any time to take remedial action in connection with Hazardous Materials contaminating a property which contamination was permitted by Tenant of such predecessor or resulted from Tenant's or such predecessor's action or use of the property in question, and (ii) Tenant is not subject to any 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). 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.

(d) **Testing**. Landlord shall have the right to conduct annual tests of the Premises to determine whether any contamination of the Premises or the Project has occurred as a result of Tenant's use. Tenant shall be required to pay the cost of such annual test of the Premises if there is a violation of this Section 30 or if contamination for which Tenant is responsible under this Section 30 is identified; provided, however, that if Tenant conducts its own tests of the Premises using third party contractors and test procedures acceptable to Landlord which tests are certified to Landlord, Landlord shall accept such tests in lieu of the annual tests to be paid for by Tenant. In addition, at any time, and from time to time, prior to the expiration or earlier termination of the Term, Landlord shall have the right to conduct appropriate tests of the Premises and the Project to determine if contamination has occurred as a result of Tenant's use of the Premises. 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 by Tenant or any Tenant Party. If contamination has occurred for which Tenant is liable under this Section 30, Tenant shall pay all costs to conduct such tests. If no such contamination is found, Landlord shall pay the costs of such tests (which shall not constitute an Operating Expense). Landlord shall provide Tenant with a copy of all third party, non-confidential reports and tests of the Premises made by or on behalf of Landlord during the Term without representation or warranty and subject to a confidentiality agreement. Tenant shall, at its sole cost and expense, promptly and satisfactorily remediate any environmental conditions 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 which Landlord may have against Tenant.

(e) **Control Areas**. Tenant shall be allowed to utilize up to its pro rata share of the Hazardous Materials inventory within any control area or zone (located within the Premises), as designated by the applicable building code, for chemical use or storage. As used in the preceding sentence, Tenant's pro rata share of any control areas or zones located within the Premises shall be determined based on the rentable square footage that Tenant leases within the applicable control area or zone. For purposes of example only, if a control area or zone contains 10,000 rentable square feet and 2,000 rentable square feet of a tenant's premises are located within such control area or zone (while such premises as a whole contains 5,000 rentable square feet), the applicable tenant's pro rata share of such control area would be 20%.

(f) **Underground Tanks**. If underground or other storage tanks storing Hazardous Materials located on the Premises or the Project are hereafter placed on the Premises or the Project by Tenant, Tenant shall install, use, monitor, operate, maintain, upgrade and manage such storage tanks, maintain

appropriate records, obtain and maintain appropriate insurance, implement reporting procedures, properly close any underground storage tanks, and take or cause to be taken all other actions necessary or required under applicable state and federal Legal Requirements, as such now exists or may hereafter be adopted or amended in connection with the installation, use, maintenance, management, operation, upgrading and closure of such storage tanks. Landlord represents that, to Landlord's actual knowledge and except as may be disclosed in the environmental reports for the Property previously provided to Tenant by Landlord, the Premises itself is not served by any such underground or other such storage tanks as of the date of this Lease.

(g) **HazMat Safety Building**. In connection with its use of the Premises, Tenant shall have the right to the non-exclusive use of certain space designated by Landlord in a Hazardous Materials safety building located at the Project for the storage of chemicals, Hazardous Materials waste and other Hazardous Materials from time to time ("**HazMat Safety Building**"). Landlord shall designate 2 separately partitioned portions of the Hazmat Safety Building (each, a "**Tenant Safety Building Space**") for Tenant's use in accordance with this Lease. Tenant shall have the right to use the larger Tenant Safety Building Space through the expiration or earlier termination of this Lease. If Tenant does not exercise its Expansion Right (as defined in Section 39) on or before the Expansion Right Expiration Date (as defined in Section 39), Tenant shall be required to surrender the smaller Tenant Safety Building Space as of the Expansion Right Expiration Date. Tenant shall use the Tenant Safety Building Spaces, maintain appropriate records, obtain and maintain appropriate insurance, implement reporting procedures, and take or cause to be taken all other actions necessary or required under applicable state and federal Legal Requirements in connection with the use of the Tenant Safety Building Spaces. Tenant shall surrender the Tenant Safety Building Spaces in accordance with the requirements of Section 28 hereof.

(h) **Tenant's Obligations**. Tenant's obligations under this Section 30 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 (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.

(i) **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 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 during the Term or any holding over, and the wastes, by-products, or residues generated, resulting, or produced therefrom.

31. Tenant's Remedies/Limitation of Liability. Landlord shall not be in default hereunder unless Landlord fails to perform any of its obligations hereunder within thirty (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 thirty (30) days, then after such period of time as is reasonably necessary, so long as Landlord is diligently performing to completion). 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.

All obligations of Landlord under this Lease will be binding upon Landlord only during the period of its ownership of the Premises and not thereafter. The term "**Landlord**" in this Lease shall mean only the owner for the time being of the Premises. Upon the transfer by such owner of its interest in the Premises, such owner shall thereupon be released and discharged from all obligations of Landlord thereafter accruing, but such obligations shall be binding during the Term upon each new owner for the duration of such owner's ownership.

32. Inspection and Access. 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 and for any other business purpose. Landlord and Landlord's representatives may enter the Premises during business hours on not less than forty-eight (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. Landlord may erect a suitable sign on the Premises stating the Premises are available to let or that the Project is available for sale. Landlord may grant easements, make public dedications, designate Common Areas and create restrictions on or about the Premises, provided that no such easement, dedication, designation or restriction materially, adversely affects Tenant's use or occupancy of the Premises for the Permitted Use. At Landlord's request, Tenant shall execute such instruments as may be necessary for such easements, dedications or restrictions. Tenant shall at all times, except in the case of emergencies, have the right to escort Landlord or its agents, representatives, contractors or guests while the same are in the Premises, provided such escort does not materially and adversely affect Landlord's access rights hereunder.

33. 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. 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 or any other breach of security with respect to the Premises. 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.

34. Force Majeure. Landlord shall not be responsible or liable for delays in the performance of its obligations hereunder when caused by, related to, or arising out of acts of God, sinkholes or subsidence, 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 action, terrorism, insurrection, riots, civil disturbance or commotion, fire or other casualty, and other causes or events beyond the reasonable control of Landlord ("**Force Majeure**").

35. Brokers. 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 Irving Hughes and CB Richard Ellis. 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 35, 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.

36. **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 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 TENANT'S BUSINESS OR FOR ANY LOSS OF INCOME OR PROFIT THEREFROM.

37. 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. It is also the intention of the parties to this Lease that in lieu of each clause or provision of this Lease that is illegal, invalid or unenforceable, there be added, as a part of this Lease, a clause or provision as similar in effect to such illegal, invalid or unenforceable clause or provision as shall be legal, valid and enforceable.

38. Signs; Exterior Appearance. Tenant shall not, without the prior written consent of Landlord, which may be granted or withheld in Landlord's sole discretion: (i) attach any awnings, exterior lights, decorations, balloons, flags, pennants, banners, painting or other projection to any outside wall of the Project, (ii) use any curtains, blinds, shades or screens other than Landlord's standard window coverings, (iii) coat or otherwise sunscreen the interior or exterior of any windows, (iv) place any bottles, parcels, or other articles on the window sills, (v) place any equipment, furniture or other items of personal

property on any exterior balcony, or (vi) paint, affix or exhibit on any part of the Premises or the Project any signs, notices, window or door lettering, placards, decorations, or advertising media of any type which can be viewed from the exterior of the Premises. Interior signs on doors and the directory tablet shall be inscribed, painted or affixed for Tenant by Landlord at the sole cost and expense of Landlord, and shall be of a size, color and type acceptable to Landlord. Nothing may be placed on the exterior of corridor walls or corridor doors other than Landlord's standard lettering. The directory tablet shall be provided exclusively for the display of the name and location of tenants.

Tenant, at Tenant's sole cost and expense, shall have the right to include its name on the building monument sign ("**Building Monument Sign**"); provided, however, that Tenant's name signage including, without limitation, the size, color and type, shall be subject to Landlord's prior written approval (which shall not be unreasonably withheld) and shall be consistent with Landlord's signage program at the Project and applicable Legal Requirements. Tenant shall pay all costs incurred in connection with Tenant's signage on the Building Monument Sign without limitation, the maintenance and removal of Tenant's signage at the expiration or earlier termination of this Lease. The signage rights granted to Tenant pursuant to this paragraph are personal to Tenant and may not be assigned to any other party 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, except that they may be assigned in connection with any Permitted Assignment of this Lease.

39. Right to Expand.

(a) **Expansion in the Project**. Tenant shall have the one-time right, commencing on the Commencement Date and exercisable on or before March 31, 2011 ("**Expansion Right Expiration Date**"), to elect to expand the original Premises (the "**Expansion Right**") to include the balance of the western half of the first floor of the Building, containing approximately 13,000 rentable square feet, as more particularly described on **Exhibit J** ("**Expansion Space**"), upon the terms and conditions contained in this Section. If Tenant elects to exercise the Expansion Right, Tenant shall, on or before the Expansion Right Expiration Date, deliver written notice to Landlord of its election to exercise the Expansion Right ("**Expansion Exercise Notice**"). If Tenant elects to lease the Expansion Space by delivering an Expansion Exercise Notice prior to the Expansion Right Expiration Date, Tenant shall be deemed to agree to lease the Expansion Space on the same terms and conditions as this Lease, except that the terms of this Lease shall be modified as follows effective as of the ES Commencement Date (as defined below): (i) the definition of Premises shall be amended to include the Expansion Space; (ii) the Base Term of the Lease with respect to the original Premises and the Expansion Space shall be amended to end 54 months from the earlier of Substantial Completion (as defined in the Expansion Space Work Letter attached hereto as **Exhibit K**) by Landlord of the Expansion Space Tenant Improvements (as defined in the Expansion Space Work Letter) or the date Landlord could have delivered the Expansion Space but for Tenant Delays (as defined in the Expansion Space Work Letter)("**ES Commencement Date**"); (iii) Tenant shall continue to pay Base Rent for the original Premises as provided for in this Lease and, in addition thereto, beginning on the ES Commencement Date, Tenant shall pay Base Rent for the Expansion Space at the then current monthly Base Rent per rentable square foot payable for the original Premises (as the same is adjusted from time to time pursuant to Section 4 of this Lease); (iv) with respect to the Base Rent payable by Tenant for the Expansion Space, Tenant shall only be required to pay Base Rent with respect to only 50% of the Expansion Space commencing on the ES Commencement Date through the expiration of the 12th month following the ES Commencement Date and Tenant shall commence paying Base Rent with respect to the entire Expansion Space on the first day of the 13th month following the ES Commencement Date; (v) Tenant shall commence paying Operating Expenses with respect to the entire Expansion Space on the ES Commencement Date; (vi) Base Rent shall be increased on the first day of the 49th month of the original Base Term and the first day of the 61st month of the original Base Term (each, an "**Adjustment Date**") by multiplying the Base Rent payable immediately before such Adjustment Date by 3.5% and

adding the resulting amount to the Base Rent payable immediately before such Adjustment Date, (vii) except as provided for in clause (iv) of this Section, Tenant shall not be entitled to any Rent Credit or any other abatement of Rent with respect to its lease of the Expansion Space, (viii) Tenant's Share of Operating Expenses of Building and Tenant's Share of Operating Expenses of Project shall be proportionately adjusted; (ix) the Expansion Space Tenant Improvements shall be constructed in accordance with the Expansion Space Work Letter; (x) subject to Force Majeure delays and Tenant Delays (as defined in the Expansion Space Work Letter) the target date for completion of the Expansion Space Tenant Improvements shall be 7 months after Tenant's delivery of the Expansion Exercise Notice to Landlord; and (xiii) the terms of Sections 41 (a) and 42 shall not be applicable to the Expansion Space. Tenant's failure to deliver a Tenant Expansion Exercise Notice prior to the Expansion Right Expiration Date shall be deemed an election by Tenant not to exercise Tenant's Expansion Right, in which case Tenant shall be deemed to have forever waived all of its rights under this Section 39(a), the provisions of this Section 39(a) shall no longer apply.

(b) **Right of First Refusal**. If, after the earlier of (x) the date Tenant exercises its Expansion Right set forth in Section 39(a), or (y) the Expansion Right Expiration Date, Landlord intends to accept a written proposal (the "**Pending Deal**") to lease any Available Space (as hereinafter defined) to any third party, Landlord shall deliver to Tenant written notice (the "**Pending Deal Notice**") of the existence of such Pending Deal, which Pending Deal Notice shall include the material business terms of such Pending Deal which Landlord intends to accept ("**Pending Deal Terms**"). For purposes of this Section 39(b), "**Available Space**" shall mean the balance of the space in the Building (excepting that certain approximately 20,000 rentable square feet leased as of the date of this Lease to The Scripps Research Institute), which is not occupied by a tenant or which is occupied by an existing tenant whose lease is expiring within 6 months or less from the date of the Pending Deal Notice and such tenant does not wish to renew (whether or not such tenant has a right to renew) its occupancy of such space. Tenant shall be entitled to exercise its right under this Section 39(b) only with respect to the entire portion of the Available Space identified in the Pending Deal Notice ("**Identified Space**"). Within 5 business 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 Identified Space. Tenant's right to receive the Pending Deal Notice, and Tenant's election to lease or not lease the Identified Space pursuant to this Section 39(b), is hereinafter referred to as the "**Right of First Refusal**." If Tenant elects to lease the Identified Space by delivering a Space Acceptance Notice within the required 5 business day period, Tenant shall be deemed to agree to lease the Identified Space, and Landlord and Tenant shall enter into an additional new lease applicable to such Identified Space (the "**ROFR Lease**"). Except as modified by the Pending Deal Terms, such ROFR Lease shall be on the same terms and conditions as those set forth in this Lease; provided, however, that (i) Tenant shall not be entitled to any Rent Credit or any other abatement of Rent provided for under this Lease, (ii) the Identified Space shall not be subject to the Work Letter or the Expansion Space Work Letter, and (iii) the terms of Sections 40, 41 and 42 shall not be applicable to the ROFR Lease. The term of the ROFR Lease shall be the term set forth in the Pending Deal Terms, which Tenant acknowledges and agrees may not be co-terminous with the Term of this Lease with respect to the Premises. Such term of the ROFR Lease shall commence with respect to the Identified Space, and Tenant shall commence paying Base Rent and Operating Expenses in accordance with the Pending Deal Terms for the Identified Space, on the commencement date as set forth in the Pending Deal Terms.

Tenant's failure to deliver a Space Acceptance Notice to Landlord as required pursuant to the immediately preceding paragraph shall be deemed to be an election by Tenant not to exercise Tenant's Right of First Refusal with respect to the Identified Space, in which case Tenant shall have no further rights under this Section 39(b) with respect to the Identified Space, and Landlord shall have the right to lease the Identified Space to any third party on any terms and conditions acceptable to Landlord. Notwithstanding the foregoing, Tenant's Right of First Refusal shall be immediately restored, and Landlord shall deliver to Tenant an additional Pending Deal Notice in accordance with this Section 39(b),

with respect to the Identified Space if (i) Landlord fails to enter into an agreement to lease the Identified Space to a third party within 6 months after Landlord's delivery to Tenant of the Pending Deal Notice applicable to such Identified Space ("**Free Period**"), or (ii) if at any time within such Free Period, Landlord intends to lease the Identified Space to a third party at an effective base rental rate for the Identified Space which is less than 90% of the effective base rental rate provided for in the Pending Deal Notice applicable to such Identified Space.

(c) **Amended Lease**. If no lease amendment or lease agreement for the Expansion Space or Identified Space, as applicable, has been executed within 10 business days after Landlord delivers to Tenant a draft of the same, Tenant shall be deemed to have forever waived its right to lease the Expansion Space or Identified Space, as applicable. Landlord shall not use the new lease or lease amendment as an opportunity to otherwise amend the terms this Lease with respect to the Premises without Tenant's written consent.

(d) **Exceptions**. Notwithstanding the above, the Expansion Right and 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; provided, however, that Landlord has provided written notice to Tenant of such Default in accordance with this 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 Expansion Right or Right of First Refusal; provided, however, that Landlord has provided written notice to Tenant of each such Default in accordance with this Lease.

(e) **Termination**. The Expansion Right and 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 Expansion Right or Right of First Refusal, as applicable, if, after such exercise, but prior to the commencement date of the lease of such Expansion Space or Identified Space, as applicable, (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 Expansion Right or Right of First Refusal, as applicable, to the date of the commencement of the lease of the Expansion Space or Identified Space, as applicable, whether or not such Defaults are cured; provided, however, that in each such case, Landlord has provided written notice to Tenant of each such Default in accordance with this Lease.

(f) **Rights Personal**. The Expansion Right and Right of First Refusal are personal to Tenant and are 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, except that they may be assigned in connection with any Permitted Assignment of this Lease.

(g) **No Extensions**. The period of time within which the Expansion Right and Right of First Refusal may be exercised shall not be extended or enlarged by reason of Tenant's inability to exercise the Expansion Right or Right of First Refusal.

40. 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 1 right (an "**Extension Right**") to extend the Base Term of this Lease for 2 years (an "**Extension Term**") on the same terms and conditions as this Lease (other than with respect to Base Rent, the Work Letter and the Expansion Space Work Letter) by giving Landlord written notice of its election to exercise the Extension Right at least 9 months prior to the expiration of the Base Term of the Lease. Notwithstanding anything to the contrary contained herein, the Extension Right shall not apply to and Tenant shall have no right to exercise the Extension Right with respect to any ROFR Lease pursuant to Section 39(b).

Base Rent shall be adjusted on the commencement date of such Extension Term and on each annual anniversary of the commencement of such Extension Term by multiplying the Base Rent payable immediately before such adjustment by 3.5% and adding the resulting amount to the Base Rent payable immediately before such adjustment.

(b) **Rights Personal**. The Extension Right is personal to Tenant 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, except that it may be assigned in connection with any Permitted Assignment of this Lease.

(c) **Exceptions**. Notwithstanding anything set forth above to the contrary, the Extension Right shall, at Landlord's option, 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; provided, however, that Landlord has provided written notice to Tenant of such Default in accordance with 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; provided, however, that Landlord has provided written notice to Tenant of each such Default in accordance with this Lease.

(d) **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.

(e) **Termination**. The Extension Right shall, at Landlord's option, 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; provided, however, that in each such case, Landlord has provided written notice to Tenant of each such Default in accordance with this Lease.

41. Rights to Terminate.

(a) **Initial Termination Right**. Subject to the provisions of this Section 41(a), Tenant shall have the right to terminate this Lease ("**Initial Termination Right**") upon the expiration of the 36th month of the Base Term ("**Termination Date**"); provided, however, that Tenant delivers to Landlord (i) written notice ("**Termination Notice**") of its election to exercise its Initial Termination Right on or before the expiration of the 27th month of the Base Term ("**Notice Delivery Date**"), along with (A) a Letter of Intent (as defined below) or (B) evidence reasonably satisfactory to Landlord of a Change In Control (as defined below), and (ii) concurrent with Tenant's delivery to Landlord of the Termination

Notice, a termination payment in an amount equal to 3.5 months of Base Rent at the rate of Base Rent payable by Tenant during the 25th through 36th months of the Base Term (the "**Early Termination Payment**"). As used herein, "**Change In Control**" shall mean that 100% of Tenant's capital stock or all or substantially all of Tenant's assets have been acquired by a third party unrelated to Tenant, and "**Letter of Intent**" shall mean a fully executed letter of intent reflecting the contemplated lease by Tenant of no less than 33,500 rentable square feet of substantially similar type space as is provided for under this Lease at another building in the San Diego area ("**Alternative Space**") for a term of no less than 12 months ("**Minimum Term**").

Notwithstanding anything to the contrary contained herein, Tenant shall only have the right to exercise the Initial Termination Right pursuant to Section 41(a)(i)(A) if (1) the Premises has not previously been expanded pursuant to Section 39, and (2) Tenant delivered a written notice ("**Additional Space Notice**") to Landlord no later than the expiration of the 23rd month of the Base Term reflecting Tenant's desire to expand the Premises by no less than 10,000 rentable square feet of space in the Building ("**Additional Space**"). If Tenant delivers an Additional Space Notice as provided for in the immediately preceding sentence, Landlord shall, on or before the date that is 30 days after Landlord's receipt of the Additional Space Notice ("**AS Notice Expiration Date**"), notify Tenant in writing whether Additional Space will be available for lease by Tenant on or before the Termination Date ("**Availability Notice**"). In no event shall Tenant have the right to exercise its Initial Termination Right pursuant to Section 41(a)(i)(A) if, on or before the AS Notice Expiration Date, Landlord responds to Tenant's Additional Space Notice with an Availability Notice that Additional Space is or will be available for lease by Tenant on or before the Termination Date. If Tenant exercises its Initial Termination Right pursuant to Section 41(a)(i)(A), Tenant shall be required to deliver to Landlord, on or before the 30th month of the Base Term, a fully executed lease for the Alternative Space (reflecting a term no less than the Minimum Term, but which Alternative Space need not be the same space identified in the Letter of Intent so long as the same satisfies the size, term and location requirements set forth above for an Alternative Space) ("**Alternative Lease**"). If Tenant shall fail to deliver the Alternative Lease to Landlord on or before the 30th month of the Base Term, the Initial Termination Right shall be null and void, Tenant shall have no further right to terminate this Lease pursuant to this Section 41(a), and Landlord shall immediately return the Early Termination Payment to Tenant. If Tenant exercises the Initial Termination Right and timely delivers the Alternative Lease, Landlord shall be free to lease the Premises to any third party for a term commencing any time after the Termination Date. If (x) Tenant has exercised its Expansion Right or Right of First Refusal pursuant to Section 39, or (y) Tenant fails to deliver the Termination Notice and/or the Early Termination Payment as required hereunder, the Initial Termination Right shall be automatically null and void and of no further force or effect and Tenant shall have no further right to terminate this Lease pursuant to this Section 41(a).

If Landlord delivers an Availability Notice to Tenant, the Availability Notice will set forth the rentable square footage of the Additional Space and Landlord's determination of the per square foot market rate of Base Rent ("**Market Rate**") for the Additional Space, which Market Rate shall be based on leases of comparable laboratory/office space in the area in which the Building is located. Any lease of the Additional Space shall be on the same terms and conditions as those set forth in this Lease for the Premises (including, for the avoidance of doubt, the expiration of the Base Term, where the Base Term for such Additional Space shall be co-terminous with the Base Term of this Lease with respect to the Premises), except that the terms of this Lease shall be modified as follows effective as of the commencement date for such Additional Space: (i) Tenant shall not be entitled to any Rent Credit or any other abatement of Rent provided for under this Lease with respect to its lease of the Additional Space, (ii) Base Rent for the Additional Space shall be payable at the Market Rate, (iii) the definition of Premises shall be amended to include the Additional Space, (iv) Tenant's Share of Operating Expenses with respect to the Building and the Project shall be proportionately increased based upon the addition of the Additional Space to the Premises, (v) with the exception of improvements to the Additional Space of a

fixed and permanent nature that may be delivered by Landlord pursuant to good faith negotiations by and between Landlord and Tenant but without any obligation on the part of Landlord to agree to make any improvements, Tenant shall accept the Additional Space in its then "as is" condition, (vi) the Additional Space shall not be subject to the Work Letter or the Expansion Space Work Letter, (vii) the Base Term of the Lease shall commence with respect to the Additional Space, and Tenant shall commence paying Base Rent and Operating Expenses for the Additional Space, on the date that is mutually agreed upon by Landlord and Tenant. If Landlord has delivered an Availability Notice to Tenant in response to Tenant's Additional Space Notice, and if Tenant elects, in its sole discretion, to lease the Additional Space, Landlord and Tenant shall enter into a lease amendment confirming Tenant's lease of the Additional Space pursuant to the above-listed terms within 60 days after Landlord's delivery of the Availability Notice. Notwithstanding anything to the contrary contained herein, if Tenant does not agree with Landlord's determination of the Market Rate for the Additional Space after negotiating in good faith, the Market Rate shall be determined by arbitration as described in Section 41(d) below. Notwithstanding anything to the contrary contained herein, if Landlord delivers an Availability Notice to Tenant and Landlord is willing to enter into a lease amendment for the Additional Space as provided for herein, then, regardless of whether Tenant elects to lease such Additional Space, Tenant shall have no right to elect to exercise the Initial Termination Right and such right shall be forfeited.

(b) **Second Termination Right**. Subject to the provisions of this Section 41(b), if Tenant has exercised its Expansion Right under Section 39(a), Tenant shall have the right to terminate this Lease ("**Second Termination Right**") upon the expiration of the 36th month following the ES Commencement Date ("**STR Termination Date**"); provided, however, that Tenant delivers to Landlord (i) written notice ("**STR Termination Notice**") of its election to exercise its Second Termination Right on or before the expiration of the 27th month following the ES Commencement Date ("**STR Notice Delivery Date**"), along with (A) an STR Letter of Intent (as defined below) or (B) evidence reasonably satisfactory to Landlord of a Change In Control, and (ii) concurrent with Tenant's delivery to Landlord of the STR Termination Notice, a termination payment in an amount equal to 6 months of Base Rent at the rate of Base Rent payable by Tenant at the time Tenant delivers the STR Termination Notice to Landlord (the "**STR Early Termination Payment**"). As used herein, "**STR Letter of Intent**" shall mean a fully executed letter of intent reflecting the contemplated lease by Tenant of no less than 46,640 rentable square feet of substantially similar type space as is provided for under this Lease at another building in the San Diego area ("**STR Alternative Space**") for a term of no less than 18 months ("**STR Minimum Term**").

Notwithstanding anything to the contrary contained herein, Tenant shall only have the right to exercise the Second Termination Right pursuant to Section 41(b)(i)(A) if (1) the Premises contains fewer that 46,640 rentable square feet, and (2) Tenant delivered a written notice ("**STR Additional Space Notice**") to Landlord no later than the expiration of the 23rd month following the ES Commencement Date reflecting Tenant's desire to expand the Premises by no less than 10,000 rentable square feet of space in the Building ("STR Additional Space"). If Tenant delivers an STR Additional Space Notice as provided for in the immediately preceding sentence, Landlord shall, on or before the date that is 30 days after Landlord's receipt of the STR Additional Space Notice ("**STR AS Notice Expiration Date**"), notify Tenant in writing whether STR Additional Space will be available for lease by Tenant on or before the STR Termination Date ("**STR Availability Notice**"). In no event shall Tenant have the right to exercise its Second Termination Right pursuant to Section 41 (b)(i)(A) if, on or before the STR AS Notice Expiration Date, Landlord responds to Tenant's STR Additional Space Notice with an STR Availability Notice that STR Additional Space is or will be available for lease by Tenant on or before the STR Termination Date. If Tenant exercises its Second Termination Right pursuant to Section 41 (b)(i)(A), Tenant shall be required to deliver to Landlord, on or before the 30th month following the ES Commencement Date, a fully executed lease for the STR Alternative Space (reflecting a term no less than the STR Minimum Term but which STR Alternative Space need not be the same space identified in the

STR Letter of Intent so long as the same satisfies the size, term and location requirements set forth above for the STR Alternative Space) ("**STR Alternative Lease**"). If Tenant shall fail to deliver the STR Alternative Lease to Landlord on or before the 30th month following the ES Commencement Date, the Second Termination Right shall be null and void, Tenant shall have no further right to terminate this Lease pursuant to this Section 41(b), and Landlord shall immediately return the STR Early Termination Payment to Tenant. If Tenant exercises the Second Termination Right, and timely delivers the STR Alternative Lease, Landlord shall be free to lease the Premises to any third party for a term commencing any time after the STR Termination Date. If (x) the Premises contains 46,640 rentable square feet or more, or (y) Tenant fails to deliver the STR Termination Notice and/or the STR Early Termination Payment as required hereunder, the Second Termination Right shall be automatically null and void and of no further force or effect and Tenant shall have no further right to terminate this Lease pursuant to this Section 41(b).

If Landlord delivers an STR Availability Notice to Tenant, the leasing of the STR Additional Space by Tenant shall be governed by the same terms applicable to the Additional Space as set forth in the final paragraph of Section 41(a). Notwithstanding anything to the contrary contained herein, if Landlord delivers an STR Availability Notice to Tenant and Landlord is willing to enter into a lease amendment for the STR Additional Space as provided for herein, then, regardless of whether Tenant elects to lease such STR Additional Space, Tenant shall have no right to elect to exercise the Second Termination Right and such right shall be forfeited.

(c) **Vacation of Premises**. If this Lease is terminated pursuant to this Section 41, then, on the Termination Date or the STR Termination Date, as applicable, Tenant shall vacate the Premises and deliver possession thereof to Landlord in the condition required by the terms of this Lease on or before the Termination Date or STR Termination Date, as applicable, and Tenant shall have no further obligations under this Lease except for those accruing prior to the Termination Date, including the obligation to pay Rent through the Termination Date or the STR Termination Date, as applicable, and those which, pursuant to the terms of the Lease, survive the expiration or early termination of the Lease.

(d) **Arbitration**.

(i) Within 5 days of Tenant's notice to Landlord of its election (or deemed 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 ("**Additional Space Proposal**"). If either party fails to timely submit an Additional Space Proposal, the other party's submitted proposal shall determine the Base Rent for the Additional Space or STR Additional Space, as applicable. If both parties submit Additional Space Proposals, then Landlord and Tenant shall meet within 5 days after delivery of the last Additional Space 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 Additional Space or STR Additional Space, as applicable. 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.

(ii) 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 commencement date of the Term with respect to the Additional Space or STR Additional Space, as applicable, then Tenant shall pay Landlord Base Rent in an amount equal to the then-current per square foot Base Rent payable for the original Premises 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 Additional Space or STR Additional Space, as applicable.

(iii) 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 industrial real estate in the greater San Diego 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 high tech or life sciences space in the greater San Diego 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.

42. Temporary Premises. Landlord shall lease to Tenant and Tenant shall lease from Landlord approximately 12,000 square feet located on the eastern half of the second floor of the Building ("**Temporary Premises**") commencing on the date that is 1 day after the substantial completion by Landlord of Landlord's Temporary Premises Work (as defined below)("**TP Delivery Date**"), and continuing until the earlier of: (i) the date that is 30 days after Substantial Completion of the Tenant Improvements within the Premises, or (ii) the date this Lease is terminated in accordance with the provisions of Section 2 or any other provision of this Lease. The Temporary Premises is more particularly shown on Exhibit G attached hereto. Tenant acknowledges and agrees that all of the terms and conditions of this Lease shall apply to the leasing of the Temporary Premises as if the Temporary Premises were the Premises, except that: (a) the term of the lease with respect to the Temporary Premises shall be as set forth in the first sentence of this Section 42; (b) commencing on the later of December 1, 2009, or the substantial completion of Landlord's Temporary Premises Work by Landlord (the "**TP Rent Commencement Date**"), Tenant shall commence paying Base Rent for the Temporary Premises in the amount of $22,800 per month; (c) Tenant may commence using the Temporary Premises for the Permitted Use on the TP Delivery Date, but shall not be required to pay Base Rent or Operating Expenses with respect to the Temporary Premises prior to the TP Rent Commencement Date, (d) Tenant's Share of Operating Expenses for the Building with respect to the Temporary Premises shall be 15.77%; (e) Tenant shall not be required to deliver any Security Deposit in addition to the Security Deposit required to be delivered by Tenant pursuant to this Lease; (f) Landlord shall not be required to make any improvements to the Building or the Temporary Premises other than Landlord's Temporary Premises Work and Tenant shall accept the Building and the Temporary Premises in their then "as is" condition; (g) notwithstanding anything to the contrary contained in Section 22, Tenant shall not have the right to sublease any portion of the Temporary Premises or assign the leasing of the Temporary Premises, and (h) the provisions of Section 39 and 40 shall not apply to the leasing of the Temporary Premises. Tenant acknowledges that Tenant shall be responsible for obtaining the certificate of occupancy and all licenses required for Tenant's occupancy of the Temporary Premises including, without limitation, any Hazardous Materials-related licenses, and for delivering a Surrender Plan as provided for in this Lease with respect to the Temporary Premises. For the purposes of this Section 42, "**Landlord's Temporary Premises Work**" shall mean substantial completion of the improvements described on **Exhibit H** attached hereto.

43. Intentionally Omitted.

44. Asbestos.

(a) **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 location identified in Exhibit I.

(b) **Tenant Acknowledgement**. Tenant hereby acknowledges receipt of the notification in paragraph (a) of this Section 44 and understands 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.

JSW

Tenant's Initials

(c) **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. 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 I prior to the commencement of such activities. Nothing in this Section 43 shall be deemed to expand Tenant's rights under the Lease or otherwise to conduct, authorize or permit any such activities.

(i) 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);

(ii) Removal of ACMs or PACMs that are not TSI or surfacing ACMs or PACMs; or

(iii) Repair and maintenance of operations that are likely to disturb ACMs or PACMs.

45. Miscellaneous.

(a) **Notices**. 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 above. Landlord and Tenant may from time to time by written notice to the other designate another address for receipt of future notices.

(b) **Joint and Several Liability**. If and when included within the term "**Tenant**," as used in this instrument, there is more than one person or entity, each shall be jointly and severally liable for the obligations of Tenant.

(c) **Financial Information**. During the Term, Tenant shall furnish Landlord with true and complete copies of (i) Tenant's most recent audited annual financial statements, if any, within one hundred eighty (180) days of the end of each of Tenant's fiscal years during the Term, (ii) at Landlord's request from time to time, which shall not be more frequent than once per year, 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, and (iii) corporate brochures and/or profiles prepared by Tenant for prospective investors.

(d) **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.

(e) **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. Words of any gender used in this Lease shall be held and construed to include any other gender, and words in the singular number shall be held to include the plural, unless the context otherwise requires. 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.

(f) **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.

(g) **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.

(h) **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.

(i) **Time**. Time is of the essence as to the performance of Tenant's obligations under this Lease.

(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.

(l) **Entire Agreement**. This Lease, including the exhibits attached hereto, constitutes the entire agreement between Landlord and Tenant pertaining to the subject matter hereof and supersedes all prior and contemporaneous agreements, understandings, letters of intent, negotiations and discussions, whether oral or written, of the parties, and there are no warranties, representations or other agreements, express or implied, made to either party by the other party in connection with the subject matter hereof except as specifically set forth herein.

(m) **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.

(n) **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]

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

TENANT:

FATE THERAPEUTICS, INC.,
a Delaware corporation

/s/ Scott Wolchko
By: Scott Wolchko
Its: CFO

LANDLORD:

ARE-3535/3565 GENERAL ATOMICS COURT, LLC, a Delaware limited liability company

By: ALEXANDRIA REAL ESTATE EQUITIES, INC., a Maryland corporation, managing member

By: /s/ Gary Dean
Its: Gary Dean
VP. RE LEGAL AFFAIRS

EXHIBIT C TO LEASE

WORK LETTER

THIS WORK LETTER dated December 3, 2009 (this "**Work Letter**") is made and entered into by and between **ARE-3535/3565 GENERAL ATOMICS COURT, LLC**, a Delaware limited liability company ("**Landlord**"), and **FATE THERAPEUTICS, INC.**, a Delaware corporation ("**Tenant**"), and is attached to and made a part of the Lease Agreement dated December 3, 2009 (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.

1. **General Requirements**.

(a) **Tenant's Authorized Representative**. Tenant designates Jim Serbia and Jessica Frances (either such individual acting alone, "**Tenant's Representative**") as the only persons authorized to act for Tenant pursuant to this Work Letter. Landlord shall not be obligated to respond to or act upon any request, approval, inquiry or other communication ("**Communication**") from or on behalf of Tenant in connection with this Work Letter unless such Communication is in writing from Tenant's Representative. Tenant may change either Tenant's Representative at any time upon not less than 5 business days advance written notice to Landlord. Neither Tenant nor Tenant's Representative shall be authorized to direct Landlord's contractors in the performance of Landlord's Work (as hereinafter defined).

(b) **Landlord's Authorized Representative**. Landlord designates Jeff Ryan and Jay Ingram (either such individual acting alone, "**Landlord's Representative**") as the only persons authorized to act for Landlord pursuant to this Work Letter. Tenant shall not be obligated to respond to or act upon any request, approval, inquiry or other Communication from or on behalf of Landlord in connection with this Work Letter unless such Communication is in writing from Landlord's Representative. Landlord may change either Landlord's Representative at any time upon not less than 5 business days advance written notice to Tenant. Landlord's Representative shall be the sole persons authorized to direct Landlord's contractors in the performance of Landlord's Work.

(c) **Architects, Consultants and Contractors**. Landlord and Tenant hereby acknowledge and agree that: (i) the general contractor for the Tenant Improvements shall be DPR, (ii) any subcontractors for the Tenant Improvements shall be selected based on a competitive bid process by Landlord, subject to Tenant's approval, which approval shall not be unreasonably withheld, conditioned or delayed, and (ii) McFarlane Architects shall be the architect (the "**TI Architect**") for the Tenant Improvements.

2. **Tenant Improvements**.

(a) **Tenant Improvements Defined**. As used herein, "**Tenant Improvements**" shall mean all improvements to the Project of a fixed and permanent nature acceptable to Landlord as shown on the TI Construction Drawings, as defined in Section 2(c) below. Other than Landlord's Work (as defined in Section 3(a) below, Landlord shall not have any obligation whatsoever with respect to the finishing of the Premises for Tenant's use and occupancy.

(b) **Tenant's Space Plans**. Landlord and Tenant acknowledge and agree that the schematic drawings and outline specifications (the "**TI Design Drawings**") detailing Tenant's requirements for the Tenant Improvements are shown on Exhibit A to the Lease and have been approved by both Landlord and Tenant.

(c) **Working Drawings**. Landlord shall cause the TI Architect to prepare and deliver to Tenant for review and comment construction plans, specifications and drawings for the Tenant Improvements ("**TI Construction Drawings**"), which TI Construction Drawings shall be prepared substantially in accordance with the TI Design Drawings. Tenant shall be solely responsible for ensuring that the TI Construction Drawings reflect Tenant's requirements for the Tenant Improvements. Tenant shall deliver its written comments on the TI Construction Drawings to Landlord not later than 5 business days after Tenant's receipt of the same; provided, however, that Tenant may not disapprove any matter that is consistent with the TI Design Drawings without submitting a Change Request. Landlord and the TI Architect shall consider all such comments in good faith and shall, within 5 business days after receipt, notify Tenant how Landlord proposes to respond to such comments, but Tenant's review rights pursuant to the foregoing sentence shall not delay the design or construction schedule for the Tenant Improvements. Any disputes in connection with such comments shall be resolved in accordance with Section 2(d) hereof. Provided that the design reflected in the TI Construction Drawings is consistent with the TI Design Drawings, Tenant shall approve the TI Construction Drawings submitted by Landlord, unless Tenant submits a Change Request. Once approved by Tenant, subject to the provisions of Section 4 below, Landlord shall not materially modify the TI Construction Drawings except as may be reasonably required in connection with the issuance of the TI Permit (as defined in Section 3(b) below) and Tenant shall have the right to reasonably approve such modifications.

(d) **Approval and Completion**. Upon any dispute regarding the design of the Tenant Improvements, which is not settled within 10 business days after notice of such dispute is delivered by one party to the other, Tenant may make the final decision regarding the design of the Tenant Improvements, provided (i) Tenant acts reasonably and such final decision is either consistent with or a compromise between Landlord's and Tenant's positions with respect to such dispute, (ii) that all costs and expenses resulting from any such decision by Tenant shall be payable out of the TI Fund (as defined in Section 5(d) below), and (iii) Tenant's decision will not affect the base Building, structural components of the Building or any Building systems. Any changes to the TI Construction Drawings following Landlord's and Tenant's approval of same requested by Tenant shall be processed as provided in Section 4 hereof.

3. **Performance of Landlord's Work**.

(a) **Definition of Landlord's Work**. As used herein, "**Landlord's Work**" shall mean the work of constructing the Tenant Improvements.

(b) **Commencement and Permitting**. Landlord shall commence construction of the Tenant Improvements upon obtaining a building permit (the "**TI Permit**") authorizing the construction of the Tenant Improvements consistent with the TI Construction Drawings approved by Tenant. The cost of obtaining the TI Permit shall be payable from the TI Fund. Tenant shall assist Landlord in obtaining the TI Permit. If any Governmental Authority having jurisdiction over the construction of Landlord's Work or any portion thereof shall impose terms or conditions upon the construction thereof that: (i) are inconsistent with Landlord's obligations hereunder, (ii) increase the cost of constructing Landlord's Work, or (iii) will materially delay the construction of Landlord's Work, Landlord and Tenant shall reasonably and in good faith seek means by which to mitigate or eliminate any such adverse terms and conditions.

(c) **Completion of Landlord's Work**. On or before the Target Commencement Date (subject to Tenant Delays and Force Majeure delays), Landlord shall substantially complete or cause to be substantially completed Landlord's Work in a good and workmanlike manner, in accordance with the TI Permit subject, in each case, to Minor Variations and normal "punch list" items of a non-material nature that do not interfere with the use of the Premises, and all Building Systems (as defined in the Lease)

serving the Premises shall be in good working order ("**Substantial Completion**" or "**Substantially Complete**"). Upon Substantial Completion of Landlord's Work, Landlord shall require the TI Architect and the general contractor to (i) execute and deliver, for the benefit of Tenant and Landlord, a Certificate of Substantial Completion in the form of the American Institute of Architects ("**AIA**") document G704, and (ii) deliver a permit card executed a building inspector from the appropriate Governmental Authority stating that the Premises is acceptable to occupy. For purposes of this Work Letter, "**Minor Variations**" shall mean any modifications reasonably required: (i) to comply with all applicable Legal Requirements and/or to obtain or to comply with any required permit (including the TI Permit); (ii) to comply with any request by Tenant for modifications to Landlord's Work; (iii) to comport with good design, engineering, and construction practices that are not material; or (iv) subject to Tenant's reasonable approval, to make reasonable adjustments for field deviations or conditions encountered during the construction of Landlord's Work.

(d) **Selection of Materials**. Where more than one type of material or structure is indicated on the TI Construction Drawings approved by Landlord and Tenant, the option will be selected at Landlord's sole and absolute subjective discretion. As to all building materials and equipment that Landlord is obligated to supply under this Work Letter, Landlord shall select the manufacturer thereof in its sole and absolute subjective discretion.

(e) **Delivery of the Premises**. When Landlord's Work is Substantially Complete, subject to the remaining terms and provisions of this Section 3(e), Tenant shall accept the Premises. Tenant's taking possession and acceptance of the Premises shall not constitute a waiver of: (i) any warranty with respect to workmanship (including installation of equipment) or material (exclusive of equipment provided directly by manufacturers), (ii) any non-compliance of Landlord's Work with applicable Legal Requirements, or (iii) any claim that Landlord's Work was not completed substantially in accordance with the TI Construction Drawings (subject to Minor Variations and such other changes as are permitted hereunder) (collectively, a "**Construction Defect**"). Tenant shall have one year after Substantial Completion within which to notify Landlord of any such Construction Defect discovered by Tenant, and Landlord shall not be in default under the Lease but Landlord shall, in a diligent manner, remedy or cause the responsible contractor to remedy any such Construction Defect.

Tenant shall be entitled to receive the benefit of all construction warranties and manufacturer's equipment warranties relating to equipment installed in the Premises. If requested by Tenant, Landlord shall attempt to obtain extended warranties from manufacturers and suppliers of such equipment, but the cost of any such extended warranties shall be borne solely out of the TI Fund. Landlord shall promptly undertake and complete, or cause to be completed, all punch list items.

(f) **Commencement Date Delay**. Except as otherwise provided in the Lease, Delivery of the Premises shall occur when Landlord's Work has been Substantially Completed, except to the extent that completion of Landlord's Work shall have been actually delayed by any one or more of the following causes ("**Tenant Delays**"):

(i) Tenant's Representative was not available to give or receive any Communication or to take any other action required to be taken by Tenant hereunder;

(ii) Tenant's request for Change Requests (as defined in Section 4(a) below) whether or not any such Change Requests are actually performed;

(iii) Construction of any Change Requests;

(iv) Tenant's request for materials, finishes or installations requiring unusually long lead times provided that Landlord informs Tenant of such lead time in advance of proceeding with such work;

(v) Tenant's delay in reviewing, revising or approving plans and specifications beyond the periods set forth herein;

(vi) Tenant's delay in providing information critical to the normal progression of the Project. Tenant shall provide such information as soon as reasonably possible, but in no event longer than one week after receipt of any request for such information from Landlord;

(vii) Tenant's delay in making payments to Landlord for Excess TI Costs (as defined in Section 5(d) below); or

(viii) Any other act or omission by Tenant or any Tenant Party (as defined in the Lease), or persons employed by any of such persons.

Landlord shall use reasonable efforts to notify Tenant of the existence of any Tenant Delay promptly after the commencement of the same. If Delivery is delayed for any of the foregoing reasons, then Landlord shall cause the TI Architect to certify the date on which the Tenant Improvements would have been completed but for such Tenant Delay and such certified date shall be the date of Delivery.

4. **Changes**. Any changes requested by Tenant to the Tenant Improvements after the delivery and approval by Landlord of the Space Plan shall be requested and instituted in accordance with the provisions of this Section 4 and shall be subject to the written approval of Landlord and the TI Architect, such approval not to be unreasonably withheld, conditioned or delayed.

(a) **Tenant's Request For Changes**. If Tenant shall request changes to the Tenant Improvements ("**Changes**"), Tenant shall request such Changes by notifying Landlord in writing in substantially the same form as the AIA standard change order form (a "**Change Request**"), which Change Request shall detail the nature and extent of any such Change. Such Change Request must be signed by Tenant's Representative. Landlord shall, before proceeding with any Change, use commercially reasonable efforts to respond to Tenant as soon as is reasonably possible with an estimate of: (i) the time it will take, and (ii) the architectural and engineering fees and costs that will be incurred, to analyze such Change Request (which costs shall be paid from the TI Fund to the extent actually incurred, whether or not such change is implemented). Landlord shall thereafter submit to Tenant in writing, within 5 business days of receipt of the Change Request (or such longer period of time as is reasonably required depending on the extent of the Change Request), an analysis of the additional cost or savings involved, including, without limitation, architectural and engineering costs and the period of time, if any, that the Change will extend the date on which Landlord's Work will be Substantially Complete. Any such delay in the completion of Landlord's Work caused by a Change, including any suspension of Landlord's Work while any such Change is being evaluated and/or designed, shall be Tenant Delay.

(b) **Implementation of Changes**. If Tenant: (i) approves in writing the cost or savings and the estimated extension in the time for completion of Landlord's Work, if any, and (ii) deposits with Landlord any Excess TI Costs required in connection with such Change, Landlord shall cause the approved Change to be instituted. Notwithstanding any approval or disapproval by Tenant of any estimate of the delay caused by such proposed Change, the TI Architect's determination of the amount of Tenant Delay in connection with such Change shall be final and binding on Landlord and Tenant.

5. **Costs**.

(a) **Budget For Tenant Improvements**. Before the commencement of construction of the Tenant Improvements, Landlord shall obtain a detailed breakdown by trade of the costs incurred or that will be incurred in connection with the design and construction of the Tenant Improvements (the "**Budget**"). The Budget shall be based upon the TI Construction Drawings approved by Tenant and shall include a payment to Landlord of administrative rent ("**Administrative Rent**") equal to 3% of the TI Costs for monitoring and inspecting the construction of the Tenant Improvements and Changes, which sum shall be payable from the TI Fund (as defined in Section 5(d). Administrative Rent shall include, without limitation, all out-of-pocket costs, expenses and fees incurred by or on behalf of Landlord arising from, out of, or in connection with monitoring the construction of the Tenant Improvements and Changes, and shall be payable out of the TI Fund. Landlord shall enter into a guaranteed maximum price contract with the general contractor for the construction of the Tenant Improvements. If the Budget is greater than the TI Allowance, Tenant shall deposit with Landlord fifty percent (50%) of the difference, in cash, prior to the commencement of construction of the Tenant Improvements or Changes, for disbursement by Landlord as described in Section 5(d) and the remaining fifty percent (50%) shall be deposited by Tenant with Landlord within thirty (30) days after Substantial Completion of the Tenant Improvements.

(b) **TI Allowance**. Landlord shall provide to Tenant a tenant improvement allowance (the "**TI Allowance**") for the Tenant Improvements equal to (i) $190.00 per rentable square foot of the Second Floor Premises, and (ii) $50.00 per rentable square foot of the First Floor Premises. The TI Allowance shall be disbursed in accordance with this Work Letter.

Tenant shall have no right to the use or benefit (including any reduction to or payment of Base Rent) of any portion of the TI Allowance not required for TI Costs.

(c) **Costs Includable in TI Fund**. The TI Fund shall be used solely for the payment of the demolition of the existing improvements in the Premises, the design, permits, inspection and construction costs in connection with the construction of the Tenant Improvements, including, without limitation, the cost of electrical power and other utilities used in connection with the construction of the Tenant Improvements, the cost of preparing the Space Plan and the TI Construction Drawings, all costs set forth in the Budget, including Landlord's Administrative Rent, Landlord's out-of-pocket expenses, costs resulting from Tenant Delays, the cost of Changes and Tenant's voice or data cabling and the cost of Tenant's project manager, if desired by Tenant, for the Tenant Improvements provided that the cost and scope of work for such project manager are mutually agreed to in writing by Landlord and Tenant (collectively, "**TI Costs**"). Notwithstanding anything to the contrary contained herein, the TI Fund shall not be used to purchase any furniture, personal property or other non-Building system materials or equipment, including, but not limited to, non-ducted biological safety cabinets and other scientific equipment not incorporated into the Tenant Improvements.

(d) **Excess TI Costs**. Landlord shall have no obligation to bear any portion of the cost of any of the Tenant Improvements except to the extent of the TI Allowance. If at any time the remaining TI Costs under the Budget exceed the remaining unexpended TI Allowance, the then current TI Cost in excess of the remaining TI Allowance ("**Excess TI Costs**") shall be paid by Tenant to Landlord, as a condition precedent to Landlord's obligation to complete the Tenant Improvements, as follows: Tenant shall deposit with Landlord 50% of the Excess TI Costs within ten (10) days after request from Landlord and the remaining 50% of the Excess TI Costs within thirty (30) days after Substantial Completion of the Tenant Improvements. If Tenant fails to deposit any Excess TI Costs with Landlord, Landlord shall have all of the rights and remedies set forth in the Lease for nonpayment of Rent (including, but not limited to, the right to interest at the Default Rate and the right to assess a late charge). For purposes of any litigation instituted with regard to such amounts, those amounts will be deemed Rent under the Lease. The TI Allowance and Excess TI Costs are herein referred to as the "**TI Fund**." Funds deposited by Tenant shall be the first disbursed to pay TI Costs. Notwithstanding anything to the contrary set forth in

this Section 5(d), Tenant shall be fully and solely liable for TI Costs and the cost of Minor Variations in excess of the TI Allowance. If upon Substantial Completion of the Tenant Improvements and the payment of all sums due in connection therewith there remains any undisbursed portion of the TI Fund, Tenant shall be entitled to such undisbursed TI Fund solely to the extent of any Excess TI Costs deposit Tenant has actually made with Landlord.

6. **Tenant Access**.

(a) **Tenant's Access Rights**. Landlord hereby agrees to permit Tenant access, at Tenant's sole risk and expense, to the Building (i) 15 days prior to the Commencement Date to install and set up Tenant's furniture, fixtures and equipment ("**Tenant's Work**"), provided that such Tenant's Work is coordinated with the TI Architect and the general contractor, and complies with the Lease and all other reasonable restrictions and conditions Landlord may impose, and (ii) prior to the completion of Landlord's Work, to inspect and observe work in process; all such access shall be during normal business hours or at such other times as are reasonably designated by Landlord. Notwithstanding the foregoing, Tenant shall have no right to enter onto the Premises or the Project unless and until Tenant shall deliver to Landlord evidence reasonably satisfactory to Landlord demonstrating that any insurance reasonably required by Landlord in connection with such pre-commencement access (including, but not limited to, any insurance that Landlord may require pursuant to the Lease) is in full force and effect. Any entry by Tenant shall comply with all established safety practices of Landlord's contractor and Landlord until completion of Landlord's Work and acceptance thereof by Tenant.

(b) **No Interference**. Neither Tenant nor any Tenant Party (as defined in the Lease) shall interfere with the performance of Landlord's Work, nor with any inspections or issuance of final approvals by applicable Governmental Authorities, and upon any such interference, Landlord shall have the right to exclude Tenant and any Tenant Party from the Premises and the Project until Substantial Completion of Landlord's Work.

(c) **No Acceptance of Premises**. The fact that Tenant may, with Landlord's consent, enter into the Project prior to the date Landlord's Work is Substantially Complete for the purpose of performing Tenant's Work shall not be deemed an acceptance by Tenant of possession of the Premises, but in such event Tenant shall defend with counsel reasonably acceptable by Landlord, indemnify and hold Landlord harmless from and against any loss of or damage to Tenant's property, completed work, fixtures, equipment, materials or merchandise, and from liability for death of, or injury to, any person, caused by the act or omission of Tenant or any Tenant Party.

7. **Miscellaneous**.

(a) **Consents**. Whenever consent or approval of either party is required under this Work Letter, that party shall not unreasonably withhold, condition or delay such consent or approval, unless expressly set forth herein to the contrary.

(b) **Modification**. No modification, waiver or amendment of this Work Letter or of any of its conditions or provisions shall be binding upon Landlord or Tenant unless in writing signed by Landlord and Tenant.

EXHIBIT E 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.

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.

Except for animals assisting the disabled, no animals shall be allowed in the offices, halls, or corridors in the Project.

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.

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.

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.

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.

Tenant shall maintain the Premises free from rodents, insects and other pests.

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.

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.

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.

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.

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.

No auction, public or private, will be permitted on the Premises or the Project.

No awnings shall be placed over the windows in the Premises except with the prior written consent of Landlord.

The Premises shall not be used for lodging, sleeping or cooking 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.

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.

Tenant assumes full responsibility for protecting the Premises from theft, robbery and pilferage.

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.

EXHIBIT K TO LEASE

EXPANSION SPACE WORK LETTER

THIS EXPANSION SPACE WORK LETTER dated , 20 (this "**Expansion Space Work Letter**") is made and entered into by and between **ARE-3535/3565 GENERAL ATOMICS COURT, LLC**, a Delaware limited liability company ("**Landlord**"), and **FATE THERAPEUTICS, INC**., a Delaware corporation ("**Tenant**"), and is attached to and made a part of the Lease Agreement dated December 3, 2009 (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.

1. **General Requirements**.

(a) **Tenant's Authorized Representative**. Tenant designates and (either such individual acting alone, "**Tenant's Representative**") as the only persons authorized to act for Tenant pursuant to this Expansion Space Work Letter. Landlord shall not be obligated to respond to or act upon any request, approval, inquiry or other communication ("**Communication**") from or on behalf of Tenant in connection with this Expansion Space Work Letter unless such Communication is in writing from Tenant's Representative. Tenant may change either Tenant's Representative at any time upon not less than 5 business days advance written notice to Landlord. Neither Tenant nor Tenant's Representative shall be authorized to direct Landlord's contractors in the performance of Landlord's Work (as hereinafter defined).

(b) **Landlord's Authorized Representative**. Landlord designates Jeff Ryan and Jay Ingram (either such individual acting alone, "**Landlord's Representative**") as the only persons authorized to act for Landlord pursuant to this Expansion Space Work Letter. Tenant shall not be obligated to respond to or act upon any request, approval, inquiry or other Communication from or on behalf of Landlord in connection with this Expansion Space Work Letter unless such Communication is in writing from Landlord's Representative. Landlord may change either Landlord's Representative at any time upon not less than 5 business days advance written notice to Tenant. Landlord's Representative shall be the sole persons authorized to direct Landlord's contractors in the performance of Landlord's Work.

(c) **Architects, Consultants and Contractors**. Landlord and Tenant hereby acknowledge and agree that: (i) the general contractor and any subcontractors for the Expansion Space Tenant Improvements shall be selected by Landlord, subject to Tenant's approval, which approval shall not be unreasonably withheld, conditioned or delayed, and (ii) the architect for the Expansion Space Tenant Improvements (the "**TI Architect**") shall be selected by Landlord, subject to Tenant's approval, which approval shall not be unreasonably withheld, conditioned or delayed.

2. **Expansion Space Tenant Improvements**.

(a) **Expansion Space Tenant Improvements Defined**. As used herein, "**Expansion Space Tenant Improvements**" shall mean all improvements to the Expansion Space of a fixed and permanent nature as shown on the TI Construction Drawings, as defined in Section 2(c) below. Other than Landlord's Work (as defined in Section 3(a) below, Landlord shall not have any obligation whatsoever with respect to the finishing of the Expansion Space for Tenant's use and occupancy.

(b) **Tenant's Space Plans**. Tenant shall deliver to Landlord and the TI Architect schematic drawings and outline specifications (the "**TI Design Drawings**") detailing Tenant's requirements for the Expansion Space Tenant Improvements within 10 business days after Tenant's delivery of the Expansion Exercise Notice. Landlord shall deliver to Tenant the written objections, questions or comments of

Landlord and the TI Architect with regard to the TI Design Drawings. Tenant shall cause the TI Design Drawings to be revised to address such written comments and shall resubmit said drawings to Landlord for approval within 5 days thereafter. Such process shall continue until Landlord and Tenant have approved the TI Design Drawings; provided, however, that the parties shall use reasonable efforts to cause mutually acceptable TI Design Drawings to be completed within 21 days after the Expansion Exercise Notice.

(c) **Working Drawings**. Landlord shall cause the TI Architect to prepare and deliver to Tenant for review and comment construction plans, specifications and drawings for the Expansion Space Tenant Improvements ("**TI Construction Drawings**"), which TI Construction Drawings shall be prepared substantially in accordance with the TI Design Drawings. Tenant shall be solely responsible for ensuring that the TI Construction Drawings reflect Tenant's requirements for the Expansion Space Tenant Improvements. Tenant shall deliver its written comments on the TI Construction Drawings to Landlord not later than 5 business days after Tenant's receipt of the same; provided, however, that Tenant may not disapprove any matter that is consistent with the TI Design Drawings without submitting a Change Request. Landlord and the TI Architect shall consider all such comments in good faith and shall, within 10 business days after receipt, notify Tenant how Landlord proposes to respond to such comments, but Tenant's review rights pursuant to the foregoing sentence shall not delay the design or construction schedule for the Expansion Space Tenant Improvements. Any disputes in connection with such comments shall be resolved in accordance with Section 2(d) hereof. Provided that the design reflected in the TI Construction Drawings is consistent with the TI Design Drawings, Tenant shall approve the TI Construction Drawings submitted by Landlord, unless Tenant submits a Change Request. Once approved by Tenant, subject to the provisions of Section 4 below, Landlord shall not materially modify the TI Construction Drawings except as may be reasonably required in connection with the issuance of the TI Permit (as defined in Section 3(b) below) and Tenant shall have the right to reasonably approve such modifications. Landlord and Tenant shall use reasonable efforts to cause mutually acceptable TI Construction Drawings to be completed within 8 weeks after the completion of the TI Design Drawings.

(d) **Approval and Completion**. Upon any dispute regarding the design of the Expansion Space Tenant Improvements, which is not settled within 10 business days after notice of such dispute is delivered by one party to the other, Tenant may make the final decision regarding the design of the Expansion Space Tenant Improvements, provided (i) Tenant acts reasonably and such final decision is either consistent with or a compromise between Landlord's and Tenant's positions with respect to such dispute, (ii) that all costs and expenses resulting from any such decision by Tenant shall be payable out of the TI Fund (as defined in Section 5(d) below), and (iii) Tenant's decision will not affect the base Building, structural components of the Building or any Building systems. Any changes to the TI Construction Drawings following Landlord's and Tenant's approval of same requested by Tenant shall be processed as provided in Section 4 hereof.

3. **Performance of Landlord's Work**.

(a) **Definition of Landlord's Work**. As used herein, "**Landlord's Work**" shall mean the work of constructing the Expansion Space Tenant Improvements.

(b) **Commencement and Permitting**. Landlord shall commence construction of the Expansion Space Tenant Improvements upon obtaining a building permit (the "**TI Permit**") authorizing the construction of the Expansion Space Tenant Improvements consistent with the TI Construction Drawings approved by Tenant. The cost of obtaining the TI Permit shall be payable from the TI Fund. Tenant shall assist Landlord in obtaining the TI Permit. If any Governmental Authority having jurisdiction over the construction of Landlord's Work or any portion thereof shall impose terms or conditions upon the construction thereof that: (i) are inconsistent with Landlord's obligations hereunder,

(ii) increase the cost of constructing Landlord's Work, or (iii) will materially delay the construction of Landlord's Work, Landlord and Tenant shall reasonably and in good faith seek means by which to mitigate or eliminate any such adverse terms and conditions.

(c) **Completion of Landlord's Work**. Landlord shall substantially complete or cause to be substantially completed Landlord's Work in a good and workmanlike manner, in accordance with the TI Permit subject, in each case, to Minor Variations and normal "punch list" items of a non-material nature that do not interfere with the use of the Expansion Space, and all Building Systems (as defined in the Lease) serving the Expansion Space shall be in good working order ("**Substantial Completion**" or "**Substantially Complete**"). Upon Substantial Completion of Landlord's Work, Landlord shall require the TI Architect and the general contractor to (i) execute and deliver, for the benefit of Tenant and Landlord, a Certificate of Substantial Completion in the form of the American Institute of Architects ("**AIA**") document G704, and (ii) deliver a permit card executed a building inspector from the appropriate Governmental Authority stating that the Premises is acceptable to occupy. For purposes of this Expansion Space Work Letter, "**Minor Variations**" shall mean any modifications reasonably required: (i) to comply with all applicable Legal Requirements and/or to obtain or to comply with any required permit (including the TI Permit); (ii) to comply with any request by Tenant for modifications to Landlord's Work; (iii) to comport with good design, engineering, and construction practices that are not material; or (iv) subject to Tenant's reasonable approval, to make reasonable adjustments for field deviations or conditions encountered during the construction of Landlord's Work.

(d) **Selection of Materials**. Where more than one type of material or structure is indicated on the TI Construction Drawings approved by Landlord and Tenant, the option will be selected at Landlord's sole and absolute subjective discretion. As to all building materials and equipment that Landlord is obligated to supply under this Expansion Space Work Letter, Landlord shall select the manufacturer thereof in its sole and absolute subjective discretion.

(e) **Delivery of the Expansion Space**. When Landlord's Work is Substantially Complete, subject to the remaining terms and provisions of this Section 3(e), Tenant shall accept the Expansion Space. Tenant's taking possession and acceptance of the Expansion Space shall not constitute a waiver of: (i) any warranty with respect to workmanship (including installation of equipment) or material (exclusive of equipment provided directly by manufacturers), (ii) any non-compliance of Landlord's Work with applicable Legal Requirements, or (iii) any claim that Landlord's Work was not completed substantially in accordance with the TI Construction Drawings (subject to Minor Variations and such other changes as are permitted hereunder) (collectively, a "**Construction Defect**"). Tenant shall have one year after Substantial Completion within which to notify Landlord of any such Construction Defect discovered by Tenant, and Landlord shall not be in default under the Lease but Landlord shall, in a diligent manner, remedy or cause the responsible contractor to remedy any such Construction Defect.

Tenant shall be entitled to receive the benefit of all construction warranties and manufacturer's equipment warranties relating to equipment installed in the Expansion Space. If requested by Tenant, Landlord shall attempt to obtain extended warranties from manufacturers and suppliers of such equipment, but the cost of any such extended warranties shall be borne solely out of the TI Fund. Landlord shall promptly undertake and complete, or cause to be completed, all punch list items.

(f) **ES Commencement Date Delay**. Except as otherwise provided in the Lease, Delivery of the Expansion Space shall occur when Landlord's Work has been Substantially Completed, except to the extent that completion of Landlord's Work shall have been actually delayed by any one or more of the following causes ("**Tenant Delays**"):

(i) Tenant's Representative was not available to give or receive any Communication or to take any other action required to be taken by Tenant hereunder;

(ii) Tenant's request for Change Requests (as defined in Section 4(a) below) whether or not any such Change Requests are actually performed;

(iii) Construction of any Change Requests;

(iv) Tenant's request for materials, finishes or installations requiring unusually long lead times provided that Landlord informs Tenant of such lead time in advance of proceeding with such work;

(v) Tenant's delay in reviewing, revising or approving plans and specifications beyond the periods set forth herein;

(vi) Tenant's delay in providing information critical to the normal progression of Landlord's Work. Tenant shall provide such information as soon as reasonably possible, but in no event longer than one week after receipt of any request for such information from Landlord;

(vii) Tenant's delay in making payments to Landlord for Excess TI Costs (as defined in Section 5(d) below); or

(viii) Any other act or omission by Tenant or any Tenant Party (as defined in the Lease), or persons employed by any of such persons.

Landlord shall use reasonable efforts to notify Tenant of the existence of any Tenant Delay promptly after the commencement of the same. If delivery is delayed for any of the foregoing reasons, then Landlord shall cause the TI Architect to certify the date on which the Expansion Space Tenant Improvements would have been completed but for such Tenant Delay and such certified date shall be the date of delivery.

4. **Changes**. Any changes requested by Tenant to the Expansion Space Tenant Improvements after the delivery and approval by Landlord of the Space Plan shall be requested and instituted in accordance with the provisions of this Section 4 and shall be subject to the written approval of Landlord and the TI Architect, such approval not to be unreasonably withheld, conditioned or delayed.

(a) **Tenant's Request For Changes**. If Tenant shall request changes to the Expansion Space Tenant Improvements ("**Changes**"), Tenant shall request such Changes by notifying Landlord in writing in substantially the same form as the AIA standard change order form (a "**Change Request**"), which Change Request shall detail the nature and extent of any such Change. Such Change Request must be signed by Tenant's Representative. Landlord shall, before proceeding with any Change, use commercially reasonable efforts to respond to Tenant as soon as is reasonably possible with an estimate of: (i) the time it will take, and (ii) the architectural and engineering fees and costs that will be incurred, to analyze such Change Request (which costs shall be paid from the TI Fund to the extent actually incurred, whether or not such change is implemented). Landlord shall thereafter submit to Tenant in writing, within 5 business days of receipt of the Change Request (or such longer period of time as is reasonably required depending on the extent of the Change Request), an analysis of the additional cost or savings involved, including, without limitation, architectural and engineering costs and the period of time, if any, that the Change will extend the date on which Landlord's Work will be Substantially Complete. Any such delay in the completion of Landlord's Work caused by a Change, including any suspension of Landlord's Work while any such Change is being evaluated and/or designed, shall be Tenant Delay.

(b) **Implementation of Changes**. If Tenant: (i) approves in writing the cost or savings and the estimated extension in the time for completion of Landlord's Work, if any, and (ii) deposits with Landlord any Excess TI Costs required in connection with such Change, Landlord shall cause the approved Change to be instituted. Notwithstanding any approval or disapproval by Tenant of any estimate of the delay caused by such proposed Change, the TI Architect's determination of the amount of Tenant Delay in connection with such Change shall be final and binding on Landlord and Tenant.

5. **Costs**.

(a) **Budget For Expansion Space Tenant Improvements**. Before the commencement of construction of the Expansion Space Tenant Improvements, Landlord shall obtain a detailed breakdown by trade of the costs incurred or that will be incurred in connection with the design and construction of the Expansion Space Tenant Improvements (the "**Budget**"). The Budget shall be based upon the TI Construction Drawings approved by Tenant and shall include a payment to Landlord of administrative rent ("**Administrative Rent**") equal to 3% of the TI Costs for monitoring and inspecting the construction of the Expansion Space Tenant Improvements and Changes, which sum shall be payable from the TI Fund (as defined in Section 5(d). Administrative Rent shall include, without limitation, all out-of-pocket costs, expenses and fees incurred by or on behalf of Landlord arising from, out of, or in connection with monitoring the construction of the Expansion Space Tenant Improvements and Changes, and shall be payable out of the TI Fund. Landlord shall enter into a guaranteed maximum price contract with the general contractor for the construction of the Expansion Space Tenant Improvements. If the Budget is greater than the TI Allowance, Tenant shall deposit with Landlord fifty percent (50%) of the difference, in cash, prior to the commencement of construction of the Expansion Space Tenant Improvements or Changes, for disbursement by Landlord as described in Section 5(d), and the remaining fifty percent (50%) shall be deposited by Tenant with Landlord within thirty (30) days after Substantial Completion of the Expansion Space Tenant Improvements

(b) **TI Allowance**. Landlord shall provide to Tenant a tenant improvement allowance (the "**TI Allowance**") for the Expansion Space Tenant Improvements equal to $190.00 per rentable square foot of the Expansion Space. The TI Allowance shall be disbursed in accordance with this Expansion Space Work Letter.

Tenant shall have no right to the use or benefit (including any reduction to or payment of Base Rent) of any portion of the TI Allowance not required for the TI Costs.

(c) **Costs Includable in TI Fund**. The TI Fund shall be used solely for the payment of the demolition of the existing improvements in the Expansion Space, the design, permits, inspection and construction costs in connection with the construction of the Expansion Space Tenant Improvements, including, without limitation, the cost of electrical power and other utilities used in connection with the construction of the Expansion Space Tenant Improvements, the cost of preparing the Space Plan and the TI Construction Drawings, all costs set forth in the Budget, including Landlord's Administrative Rent, Landlord's out-of-pocket expenses, costs resulting from Tenant Delays, the cost of Changes and Tenant's voice or data cabling and the cost of Tenant's project manager, if desired by Tenant, for the Tenant Improvements provided that the cost and scope of work for such project manager are mutually agreed to in writing by Landlord and Tenant (collectively, "**TI Costs**"). Notwithstanding anything to the contrary contained herein, the TI Fund shall not be used to purchase any furniture, personal property or other non-Building system materials or equipment, including, but not limited to, non-ducted biological safety cabinets and other scientific equipment not incorporated into the Expansion Space Tenant Improvements.

(d) **Excess TI Costs**. Landlord shall have no obligation to bear any portion of the cost of any of the Expansion Space Tenant Improvements except to the extent of the TI Allowance. If at any time the

remaining TI Costs under the Budget exceed the remaining unexpended TI Allowance, the then current TI Cost in excess of the remaining TI Allowance ("**Excess TI Costs**") shall be paid by Tenant to Landlord, as a condition precedent to Landlord's obligation to complete the Tenant Improvements, as follows: Tenant shall deposit with Landlord 50% of the Excess TI Costs within ten (10) days after request from Landlord and the remaining 50% of the Excess TI Costs within thirty (30) days after Substantial Completion of the Tenant Improvements. If Tenant fails to deposit any Excess TI Costs with Landlord, Landlord shall have all of the rights and remedies set forth in the Lease for nonpayment of Rent (including, but not limited to, the right to interest at the Default Rate and the right to assess a late charge). For purposes of any litigation instituted with regard to such amounts, those amounts will be deemed Rent under the Lease. The TI Allowance and Excess TI Costs are herein referred to as the "**TI Fund**." Funds deposited by Tenant shall be the first disbursed to pay TI Costs. Notwithstanding anything to the contrary set forth in this Section 5(d), Tenant shall be fully and solely liable for TI Costs and the cost of Minor Variations in excess of the TI Allowance. If upon Substantial Completion of the Expansion Space Tenant Improvements and the payment of all sums due in connection therewith there remains any undisbursed portion of the TI Fund, Tenant shall be entitled to such undisbursed TI Fund solely to the extent of any Excess TI Costs deposit Tenant has actually made with Landlord.

6. **Tenant Access**.

(a) **Tenant's Access Rights**. Landlord hereby agrees to permit Tenant access, at Tenant's sole risk and expense, to the Expansion Space (i) 15 days prior to the ES Commencement Date to install and set up Tenant's furniture, fixtures and equipment ("**Tenant's Work**"), provided that such Tenant's Work is coordinated with the TI Architect and the general contractor, and complies with the Lease and all other reasonable restrictions and conditions Landlord may impose, and (ii) prior to the completion of Landlord's Work, to inspect and observe work in process; all such access shall be during normal business hours or at such other times as are reasonably designated by Landlord. Notwithstanding the foregoing, Tenant shall have no right to enter onto the Expansion Space unless and until Tenant shall deliver to Landlord evidence reasonably satisfactory to Landlord demonstrating that any insurance reasonably required by Landlord in connection with such pre-commencement access (including, but not limited to, any insurance that Landlord may require pursuant to the Lease) is in full force and effect. Any entry by Tenant shall comply with all established safety practices of Landlord's contractor and Landlord until completion of Landlord's Work and acceptance thereof by Tenant.

(b) **No Interference**. Neither Tenant nor any Tenant Party (as defined in the Lease) shall interfere with the performance of Landlord's Work, nor with any inspections or issuance of final approvals by applicable Governmental Authorities, and upon any such interference, Landlord shall have the right to exclude Tenant and any Tenant Party from the Expansion Space until Substantial Completion of Landlord's Work.

(c) **No Acceptance of Premises**. The fact that Tenant may, with Landlord's consent, enter into the Expansion Space prior to the date Landlord's Work is Substantially Complete for the purpose of performing Tenant's Work shall not be deemed an acceptance by Tenant of possession of the Expansion Space, but in such event Tenant shall defend with counsel reasonably acceptable by Landlord, indemnify and hold Landlord harmless from and against any loss of or damage to Tenant's property, completed work, fixtures, equipment, materials or merchandise, and from liability for death of, or injury to, any person, caused by the act or omission of Tenant or any Tenant Party.

7. **Miscellaneous**.

(a) **Consents**. Whenever consent or approval of either party is required under this Work Letter, that party shall not unreasonably withhold, condition or delay such consent or approval, unless expressly set forth herein to the contrary.

(b) **Modification**. No modification, waiver or amendment of this Work Letter or of any of its conditions or provisions shall be binding upon Landlord or Tenant unless in writing signed by Landlord and Tenant.

EXHIBIT 10.15

FIRST AMENDMENT TO LEASE AGREEMENT

THIS FIRST AMENDMENT TO LEASE AGREEMENT (this "**First Amendment**") is made as of October 1, 2011 ("**Effective Date**"), by and between **ARE-3535/3565 GENERAL ATOMICS COURT, LLC**, a Delaware limited liability company ("**Landlord**"), and **FATE THERAPEUTICS, INC.**, a Delaware corporation ("**Tenant**").

RECITALS

A. Landlord and Tenant are parties to that certain Lease Agreement dated as of December 3, 2009 (the "**Lease**"). Pursuant to the Lease, Tenant leases certain premises consisting of approximately 23,640 rentable square feet in a building located at 3535 General Atomics Court, San Diego, California ("**Premises**"). The Premises consist of (i) approximately 18,813 rentable square feet located on the second floor of the Building ("**Second Floor Premises**") and (ii) approximately 4,827 rentable square feet located on the first floor of the Building ("**First Floor Premises**"). The Premises, including the Second Floor Premises and the First Floor Premises, are more particularly described in the Lease. Capitalized terms used herein without definition shall have the meanings defined for such terms in the Lease.

B. Landlord and Tenant desire, subject to the terms and conditions set forth herein, to amend the Lease to (a) provide for the surrender of the First Floor Premises, and (b) lease certain additional space in the Building consisting of approximately 4,871 rentable square foot of space located on the first floor of the Premises ("**Expansion Premises**") as more particularly described in Exhibit A to this First Amendment.

NOW, **THEREFORE**, in consideration of the foregoing Recitals, which are incorporated herein by this reference, the mutual promises and conditions contained herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Landlord and Tenant hereby agree as follows:

1. Premises. As of the Effective Date, the Premises and Exhibit A to the Lease shall be deemed to exclude the First Floor Premises. Commencing on the Expansion Premises Commencement Date (as defined in Section 7 below), (i) the Premises shall be deemed to include the Expansion Premises and (ii) Exhibit A to this First Amendment shall be deemed added to Exhibit A to the Lease.

2. Surrender of the First Floor Premises. The Lease with respect to the First Floor Premises shall terminate on the Effective Date. Tenant shall voluntarily surrender the First Floor Premises on or before the Effective Date in the condition which Tenant is required to surrender the Premises as of the expiration of the Lease (including, without limitation, as required by Section 28 of the Lease; provided, however, that Tenant shall not be required to provide Landlord with a Surrender Plan). From and after the Effective Date, Tenant shall have no further rights of any kind with respect to the First Floor Premises. Notwithstanding the foregoing, those provisions of the Lease which, by their terms, survive the termination of the Lease shall survive the surrender of the First Floor Premises and the termination of the Lease with respect to the First Floor Premises as provided for herein. Nothing herein shall excuse Tenant from its obligations under the Lease with respect to the First Floor Premises prior to the Effective Date.

3. Amendments to the Defined Terms as of the Effective Date. As of the Effective Date, the following definitions on Page 1 of the Lease shall be amended and restated in their entirety as follows:

a. "**Premises**: The portion of the Project containing approximately 18,813 rentable square feet located on the western half of the second floor of the building, as determined by Landlord, as shown on **Exhibit A**. The rentable square footage of the Premises is subject to adjustment as provided in for in Section 5 hereof."

b. "**Rentable Area of the Premises**: 18,813 sq ft., subject to adjustment as provided for in Section 5 hereof."

c. "**Tenant's Share of Operating Expenses for the Building**: 24.73%, subject to adjustment as provided for in Section 5 hereof."

d. "**Tenant's Share of Operating Expenses for the Project**: 15.72%, subject to adjustment as provided for in Section 5 hereof."

4. Amendments to the Defined Terms as of the Expansion Premises Commencement Date. As of the Expansion Premises Commencement Date, the following definitions on Page 1 of the Lease shall be amended and restated in their entirety as follows:

a. "**Premises**: The portion of the Project containing approximately 23,684 rentable consisting of (i) 18,813 square feet located on the western half of the second floor of the Building ("**Second Floor Premises**"), and (ii) approximately 4,871 square feet located on the first floor of the Building ("**Expansion Premises**"), all as determined by Landlord, as shown on **Exhibit A**. The rentable square footage of the Premises is subject to adjustment as provided in for in Section 5 hereof."

b. "**Rentable Area of the Premises**: 23,684 sq ft., subject to adjustment as provided for in Section 5 hereof."

c. "**Tenant's Share of Operating Expenses for the Building**: 31.13%, subject to adjustment as provided for in Section 5 hereof."

d. "**Tenant's Share of Operating Expenses for the Project**: 19.79%, subject to adjustment as provided for in Section 5 hereof."

e. "**Base Term**: With respect to the Second Floor Premises, commencing on June 10, 2010 and ending on June 30, 2014. With respect to the Expansion Premises, commencing on the Expansion Premises Commencement Date and ending on June 30, 2014."

5. Payment of Base Rent.

a. Notwithstanding anything to the contrary in the Lease, commencing on the Effective Date, the monthly Base Rent payable in respect of the Premises shall be as follows:

Period	Base Rent
Effective Date – June 10, 2012	$2.95 per rentable square foot per month
June 11, 2012 – June 10, 2013	$3.05 per rentable square foot per month
June 11, 2013 – June 30, 2014	$3.15 per rentable square foot per month

b. The second paragraph of Section 3(a) of the Lease is hereby deleted in its entirety and replaced with the following:

"Notwithstanding anything to the contrary contained in this Lease, Tenant shall be required to pay Base Rent in the per square foot amounts set forth in Page 1:

(i) with respect to only 15,000 rentable square feet of the Premises commencing on the Commencement Date and continuing through the Effective Date;

(ii) with respect to only 11,937 rentable square feet of the Premises commencing on the Effective Date and continuing through December 10, 2011;

(iii) with respect to only 15,120 rentable square feet of the Premises commencing on December 11, 2011 and continuing through June 10, 2012; provided, however that if the Expansion Premises Commencement Date occurs during such period, then as of the Expansion Premises Commencement Date through June 10, 2012, Tenant shall pay Base Rent with respect to 19,000 rentable square feet of the Premises; and

(iv) if the Expansion Premises Commencement Date has not occurred prior to June 11, 2012, with respect to only 18,813 rentable square feet of the Premises commencing on June 11, 2012 and continuing through the Expansion Premises Commencement Date; provided, however, that upon the Expansion Premises Commencement Date, Tenant shall pay Base Rent with respect to the entire Premises consisting of 23,684 rentable square feet.

c. Notwithstanding anything to the contrary in the Lease, Tenant shall receive a credit to be applied to the payment of Base Rent for the calendar month of November, 2011 in the amount of $18,071.70.

6. Landlord's Second Floor Work. Landlord shall, at Landlord's sole cost and expense, convert the existing chemistry laboratory in the Second Floor Premises ("**Chemistry Lab**") to a biology laboratory as set forth on Exhibit B hereto ("**Landlord's Second Floor Work**"). Landlord shall use reasonable efforts to substantially complete Landlord's Second Floor Work on or before December 31, 2011; provided, however, that if Landlord fails to timely complete Landlord's Second Floor Work, Landlord shall not be liable to Tenant for any loss or damage resulting therefrom, and this Lease shall not be void or voidable. Landlord shall select all building materials and equipment required to complete the Landlord's Second Floor Work in its sole and absolute subjective discretion. Landlord shall complete Landlord's Second Floor Work in a good and workmanlike manner. Tenant acknowledges that Landlord shall require access to portions of the Premises in order to complete Landlord's Second Floor Work. Landlord and its contractors and agents shall have the right to enter the Premises to complete Landlord's Second Floor Work and Tenant shall cooperate with Landlord in connection with the same. Tenant acknowledges that Landlord's completion of the Landlord's Second Floor Work may adversely affect Tenant use and occupancy of the Premises; provided, however, that Landlord shall use commercially reasonable efforts to minimize any interruption to Tenant's business operations in the Premises including, without limitation, considering any requests by Tenant. Tenant waives all claims against Landlord in connection with Landlord's Second Floor Work including, without limitation, claims for rent abatement. Notwithstanding anything to the contrary contained in the Lease or this First Amendment, provided that Tenant is not then in Default under the Lease, if Landlord does not substantially complete (subject to minor punch list items) Landlord's Second Floor Work by April 15, 2012 ("**Outside Completion Date**"), subject to Tenant Delays (as defined below) and Force Majeure delays, then the rentable square footage on which Tenant is required to pay Base Rent under the Lease shall be reduced on a pro-rata, per diem basis by the rentable square footage of the Chemistry Lab commencing on April 16, 2012 and continuing until the completion of Landlord's Second Floor Work. The term "**Tenant Delay**" shall mean any act or omission by Tenant or any Tenant Party (as defined in the Lease), or persons employed by any of such persons which causes an actual delay in the completion of the Landlord's Second Floor Work. If the

completion of Landlord's Second Floor Work is delayed as result of a Force Majeure Delay or a Tenant Delay, then the Outside Completion Date shall be extended by one day for each day of Tenant Delay or Force Majeure delay, if any.

7. Delivery of the Expansion Premises/Landlord's Expansion Premises Work.

a. Landlord shall use reasonable efforts to deliver the Expansion Premises to Tenant on or before April 1, 2012 ("**Delivery**" or "**Deliver**") with Landlord's Expansion Premises Work (defined below) substantially complete. If Landlord fails to timely Deliver the Expansion Premises, Landlord shall not be liable to Tenant for any loss or damage resulting therefrom, and this Lease with respect to the Expansion Premises shall not be void or voidable. "**Landlord's Expansion Premises Work**" shall mean the improvements set forth on Exhibit C hereto. Landlord shall select all building materials and equipment required to complete the Landlord's Expansion Premises Work in its sole and absolute subjective discretion. Landlord shall complete Landlord's Expansion Premises Work in a good and workmanlike manner. Other than Landlord's Expansion Premises Work, Landlord shall have no obligation to perform any work at the Building in connection with Tenant's occupancy or obtain any permits, approvals or entitlements related to Tenant's specific use of the Expansion Premises or Tenant's business operations therein.

b. The "**Expansion Premises Commencement Date**" shall be the date that Landlord Delivers the Expansion Premises to Tenant. Upon request of Landlord, Tenant shall execute and deliver a written acknowledgment of the Expansion Commencement Date when the same is established in a form substantially similar to the form of the "**Acknowledgement of Commencement Date**" attached to the Lease as Exhibit D; provided, however, Tenant's failure to execute and deliver such acknowledgment shall not affect Landlord's rights hereunder.

c. Except as set forth in this First Amendment, if applicable: (i) Tenant shall accept the Expansion Premises in their condition as of the Expansion Premises Commencement Date; (ii) Landlord shall have no obligation for any defects in the Expansion Premises; and (iii) Tenant's taking possession of the Expansion Premises shall be conclusive evidence that Tenant accepts the Expansion Premises and that the Expansion Premises were in good condition at the time possession was taken.

d. 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 Expansion Premises, and/or the suitability of the Expansion Premises for the conduct of Tenant's business, and Tenant waives any implied warranty that the Expansion Premises are suitable for the Permitted Use.

8. No Right to Expand; No Right to Terminate; No Temporary Premises. Section 39, Section 41 and Section 42 of the Lease are hereby deleted in the entirety and are of no further force or effect.

9. Redevelopment of Project. Tenant acknowledges that Landlord, in its sole discretion, may now and/or in the future time expand, renovate and/or reconfigure the Project as the same may exist from time to time and, in connection therewith or in addition thereto, as the case may be, from time to time without limitation: (a) change the shape, size, location, number and/or extent of any improvements, buildings, structures, lobbies, hallways, entrances, exits, parking and/or parking areas relative to any portion of the Project; (b) modify, eliminate and/or add any buildings, improvements, and parking structure(s) either above or below grade, to the Project, the Common Areas and/or any other portion of the Project and/or make any other changes thereto affecting the same; and (c) make any other changes,

additions and/or deletions in any way affecting the Project and/or any portion thereof as Landlord may elect from time to time, including without limitation, additions to and/or deletions from the land comprising the Project, the Common Areas and/or any other portion of the Project. The provisions of this section shall not supersede or modify Section 24 (Quiet Enjoyment) of the Lease.

10. Miscellaneous.

a. This First Amendment is the entire agreement between the parties with respect to the subject matter hereof and supersedes all prior and contemporaneous oral and written agreements and discussions. This First Amendment may be amended only by an agreement in writing, signed by the parties hereto.

b. This First Amendment is binding upon and shall inure to the benefit of the parties hereto, their respective agents, employees, representatives, officers, directors, divisions, subsidiaries, affiliates, assigns, heirs, successors in interest ands shareholders.

c. This First Amendment may be executed in any number of counterparts, each of which shall be deemed an original, but all of which when taken together shall constitute one and the same instrument. The signature page of any counterpart may be detached therefrom without impairing the legal effect of the signature(s) thereon provided such signature page is attached to any other counterpart identical thereto except having additional signature pages executed by other parties to this First Amendment attached thereto.

d. Landlord and Tenant each represent and warrant that it has not dealt with any broker, agent, or other person (collectively, "**Broker**") other than Hughes Marino and Cassidy Turley in connection with this transaction, and that no Broker brought about this transaction. Landlord and Tenant each hereby agrees to indemnify and hold the other harmless from and against any claims by any Broker (other than Hughes Marino or Cassidy Turley) claiming a commission or other form of compensation by virtue of having dealt with Landlord or Tenant, as applicable, with regard to this leasing transaction.

e. Except as amended and/or modified by this First Amendment, the Lease is hereby ratified and confirmed, and all other terms of the Lease shall remain in full force and effect, unaltered and unchanged by this First Amendment. In the event of any conflict between the provisions of this First Amendment and the provisions of the Lease, the provisions of this First Amendment shall prevail. Whether or not specifically amended by this First Amendment, all of the terms and provisions of the Lease are hereby amended to the extent necessary to give effect to the purpose and intent of this First Amendment.

[Signatures are on the next page.]

IN WITNESS THEREOF, the parties hereto have executed this First Amendment as of the day and year first written above.

LANDLORD:

ARE-3535/3565 GENERAL ATOMICS COURT, LLC, a Delaware limited liability company

By: ALEXANDRIA REAL ESTATE EQUITIES, INC., a Maryland corporation,
managing member

By: /s/ Gary Dean

GARY DEAN
VP – RE LEGAL AFFAIRS

TENANT:

FATE THERAPEUTICS, INC.,
a Delaware corporation

By: /s/ Scott Wolchko

Name: Scott Wolchko
Title: CFO, Treasurer & Secretary

LOAN AND SECURITY AGREEMENT

THIS LOAN AND SECURITY AGREEMENT (this "**Agreement**") dated as of January 5, 2009 (the "**Effective Date**") between **SILICON VALLEY BANK**, a California corporation and with a loan production office located at 901 Fifth Avenue, Suite 3900, Seattle, Washington 98164 ("**Bank**"), and **FATE THERAPEUTICS**, **INC.**, a Delaware corporation ("**Borrower**"), provides the terms on which Bank shall lend to Borrower and Borrower shall repay Bank. The parties agree as follows:

1 ACCOUNTING AND OTHER TERMS

Accounting terms not defined in this Agreement shall be construed following GAAP. Calculations and determinations must be made following GAAP. Capitalized terms not otherwise defined in this Agreement shall have the meanings set forth in Section 13. All other terms contained in this Agreement, unless otherwise indicated, shall have the meaning provided by the Code to the extent such terms are defined therein.

2 LOAN AND TERMS OF PAYMENT

2.1 Promise to Pay. Borrower hereby unconditionally promises to pay Bank the outstanding principal amount of all Credit Extensions and accrued and unpaid interest thereon as and when due in accordance with this Agreement.

2.1.1 Term Loan.

(a) Availability. Subject to the terms and conditions of this Agreement, Bank agrees to lend to Borrower, from time to time prior to January 12, 2009, term loan advances (each a "**Term Advance**" and collectively the "**Term Advances**") in an aggregate amount not to exceed the Term Loan Amount. After repayment, no Term Advance may be reborrowed.

(b) Interest Payments. Commencing on the first Payment Date of the month following the month in which the Funding Date occurs, Borrower shall make monthly payments of interest at the rate set forth in Section 2.2(a).

(c) Repayment. Commencing on September 1, 2009, and continuing on the Payment Date of each month thereafter, Borrower shall repay each Term Advance in (i) thirty (30) equal installments of principal, plus (ii) monthly payments of accrued interest at the rate set forth in Section 2.2(a) (each, a "**Term Loan Payment**"). Borrower's final Term Loan Payment, due on the Term Loan Maturity Date, shall include all outstanding principal and accrued and unpaid interest under the Term Loan.

(d) Mandatory Prepayment of Term Advances Upon an Acceleration. If the Term Advances are accelerated following the occurrence and during the continuance of an Event of Default, Borrower shall immediately pay to Bank an amount equal to the sum of (i) all outstanding principal plus accrued and unpaid interest, and (ii) all other sums, if any, that shall have become due and payable, including interest at the Default Rate with respect to any past due amounts.

(e) Permitted Prepayment of Term Advances. So long as no Event of Default has occurred and is continuing, Borrower shall have the option to prepay all, but not less than all, of the Term Advances advanced by Bank under this Agreement, provided Borrower (i) delivers written notice to Bank of its election to prepay such Term Advances at least five (5) days prior to such prepayment, and (ii) pays, on the date of such prepayment (A) all outstanding principal plus accrued and unpaid interest, and (B) all other sums, if any, that shall have become due and payable, including interest at the Default Rate with respect to any past due amounts thereon.

2.2 Payment of Interest on the Credit Extensions.

(a) Interest Rate. Subject to Section 2.3(b), the principal amount of each Term Advance outstanding under the Term Loan shall accrue interest at a fixed per annum rate equal to one and one-quarter percent

(1.25%) above the Prime Rate, which rate shall be fixed for each Term Advance as of the Funding Date of such Term Advance, and which interest shall be payable monthly in arrears; provided, however, if the amount maintained by Borrower in its SVB Eurodollar sweep account is less than Two Million Dollars ($2,000,000) at any time during a particular month and remains less than Two Million Dollars ($2,000,000) for a period of at least three (3) consecutive Business Days after notice thereof to Borrower from Bank, then, as of the first day of the subsequent month, the rate in the immediately preceding sentence shall be increased by an additional fixed per annum rate (fixed as of such first day of the month) equal to one and one-half of one percent (1.50%) per annum.

(b) Default Rate. Immediately upon the occurrence and during the continuance of an Event of Default, Obligations shall bear interest at a rate per annum which is four percentage points (4.0%) above the rate that is otherwise applicable thereto (the "**Default Rate**"). Payment or acceptance of the increased interest rate provided in this Section 2.3(b) is not a permitted alternative to timely payment and shall not constitute a waiver of any Event of Default or otherwise prejudice or limit any rights or remedies of Bank.

(c) 360-Day Year. Interest shall be computed on the basis of a 360-day year for the actual number of days elapsed.

(d) Debit of Accounts. Bank may debit the Designated Deposit Account for principal and interest payments or any other amounts Borrower owes Bank when due. These debits shall not constitute a set-off.

(e) Payments. Unless otherwise provided, interest is payable monthly in arrears on the Payment Date of each month. Payments of principal and/or interest received after 12:00 p.m. Eastern time are considered received at the opening of business on the next Business Day. When a payment is due on a day that is not a Business Day, the payment is due the next Business Day and all fees or interest, as applicable, shall continue to accrue until paid.

2.3 Fees. Borrower shall pay to Bank:

(a) Commitment Fee. A fully earned, non-refundable commitment fee of Three Thousand Dollars ($3,000.00), on the Effective Date; and

(b) Bank Expenses. All Bank Expenses incurred and invoiced to Borrower through and after the Effective Date, when due.

3 CONDITIONS OF LOANS

3.1 Conditions Precedent to Initial Credit Extension. Bank's obligation to make the initial Credit Extension is subject to the condition precedent that Bank shall have received, in form and substance satisfactory to Bank, such documents, and completion of such other matters, as Bank may reasonably deem necessary or appropriate, including, without limitation:

(a) duly executed original signatures to the Loan Documents dated prior to or as of the Effective Date to which it is a party;

(b) duly executed original signatures to the Control Agreement[s];

(c) its Operating Documents and a good standing certificate of Borrower certified by the Secretary of State of the State of Delaware as of a date no earlier than thirty (30) days prior to the Effective Date;

(d) duly executed original signatures to the completed Borrowing Resolutions for Borrower;

(e) certified copies, dated as of a recent date, of financing statement searches, as Bank shall request, accompanied by written evidence (including any UCC termination statements) that the Liens indicated in any such financing statements either constitute Permitted Liens or have been or, in connection with the initial Credit Extension, will be terminated or released;

(f) the Perfection Certificate executed by Borrower, together with the duly executed original signatures thereto;

(g) a legal opinion of Borrower's counsel dated as of the Effective Date together with the duly executed original signatures thereto;

(h) a copy of its Investors' Rights Agreement and any amendments thereto;

(i) evidence satisfactory to Bank that the insurance policies required by Section 6.5 hereof are in full force and effect, together with appropriate evidence showing loss payable and/or additional insured clauses or endorsements in favor of Bank; and

(j) payment of the fees and Bank Expenses then due as specified in Section 2.3 hereof.

3.2 Conditions Precedent to all Credit Extensions. Bank's obligations to make each Credit Extension, including the initial Credit Extension, is subject to the following:

(a) except as otherwise provided in Section 3.4, timely receipt of an executed Payment/Advance Form;

(b) the representations and warranties in Section 5 shall be true, accurate and complete in all material respects on the date of the Payment/Advance Form and on the Funding Date of each Credit Extension; provided, however, that such materiality qualifier shall not be applicable to any representations and warranties that already are qualified or modified by materiality in the text thereof; and provided, further that those representations and warranties expressly referring to a specific date shall be true, accurate and complete in all material respects as of such date, and no Event of Default shall have occurred and be continuing or result from the Credit Extension. Each Credit Extension is Borrower's representation and warranty on that date that the representations and warranties in Section 5 are true in all material respects as of the date thereof; provided, however, that such materiality qualifier shall not be applicable to any representations and warranties that already are qualified or modified by materiality in the text thereof; and provided, further that those representations and warranties expressly referring to a specific date shall be true, accurate and complete in all material respects as of such date; and

(c) in Bank's reasonable discretion, there has not been any material impairment in the general affairs, management, results of operation, financial condition or the prospect of repayment of the Obligations, nor has there been any material adverse deviation by Borrower from the most recent business plan of Borrower presented to and accepted by Bank.

3.3 Covenant to Deliver. Borrower agrees to deliver to Bank each item required to be delivered to Bank under this Agreement as a condition to any Credit Extension. Borrower expressly agrees that a Credit Extension made prior to the receipt by Bank of any such item shall not constitute a waiver by Bank of Borrower's obligation to deliver such item, and any such Credit Extension in the absence of a required item shall be made in Bank's sole discretion.

3.4 Procedures for Borrowing. Subject to the prior satisfaction of all other applicable conditions to the making of a Term Advance set forth in this Agreement, to obtain a Term Advance, Borrower shall notify Bank (which notice shall be irrevocable) by electronic mail, facsimile, or telephone by 12:00 noon Eastern time on the Funding Date of the Term Advance. Together with any such electronic or facsimile notification, Borrower shall deliver to Bank by electronic mail or facsimile a completed Payment/ Advance Form executed by a Responsible Officer or his or her designee. Bank may rely on any telephone notice given by a person whom Bank reasonably believes is a Responsible Officer or designee. Bank shall credit Term Advances to the Designated Deposit Account. Bank may make Term Advances under this Agreement based on instructions from a Responsible Officer or his or her designee or without instructions if the Term Advances are necessary to meet Obligations which have become due.

4 CREATION OF SECURITY INTEREST

4.1 Grant of Security Interest. Borrower hereby grants Bank, to secure the payment and performance in full of all of the Obligations, a continuing security interest in, and pledges to Bank, the Collateral, wherever located, whether now owned or hereafter acquired or arising, and all proceeds and products thereof. Borrower represents, warrants, and covenants that the security interest granted herein is and shall at all times continue to be a first priority perfected security interest in the Collateral (subject only to Permitted Liens that may have superior priority to Bank's Lien under this Agreement). If Borrower shall acquire a commercial tort claim, Borrower shall promptly notify Bank in a writing signed by Borrower of the general details thereof and grant to Bank in such writing a security interest therein and in the proceeds thereof, all upon the terms of this Agreement, with such writing to be in form and substance reasonably satisfactory to Bank.

If this Agreement is terminated, Bank's Lien in the Collateral shall continue until the Obligations (other than inchoate indemnity obligations) are repaid in full in cash. Upon payment in full in cash of the Obligations and at such time as Bank's obligation to make Credit Extensions has terminated, Bank shall, at Borrower's sole cost and expense, release its Liens in the Collateral and all rights therein shall revert to Borrower.

4.2 Authorization to File Financing Statements. Borrower hereby authorizes Bank to file financing statements, without notice to Borrower, with all appropriate jurisdictions to perfect or protect Bank's interest or rights hereunder, including a notice that any disposition of the Collateral, by either Borrower or any other Person, shall be deemed to violate the rights of Bank under the Code. Such financing statements may indicate the Collateral as "all assets of the Debtor" or words of similar effect, or as being of an equal or lesser scope, or with greater detail, all in Bank's discretion, and may include a notice that any disposition of the Collateral, by Borrower or any other person, shall be deemed to violate the rights of Bank under the Code.

5 REPRESENTATIONS AND WARRANTIES

Borrower represents and warrants as follows:

5.1 Due Organization, Authorization; Power and Authority. Borrower and each of its Subsidiaries are duly existing and in good standing as Registered Organizations in their respective jurisdictions of formation and are qualified and licensed to do business and are in good standing in any jurisdiction in which the conduct of their respective business or ownership of property requires that it be qualified except where the failure to do so could not reasonably be expected to have a material adverse effect on Borrower's business. In connection with this Agreement, Borrower has delivered to Bank a completed certificate signed by Borrower (the "Perfection Certificate"). Borrower represents and warrants to Bank that: (a) Borrower's exact legal name is that indicated on the Perfection Certificate and on the signature page hereof; (b) Borrower is an organization of the type and is organized in the jurisdiction set forth in the Perfection Certificate; (c) the Perfection Certificate accurately sets forth Borrower's organizational identification number or accurately states that Borrower has none; (d) the Perfection Certificate accurately sets forth Borrower's place of business, or, if more than one, its chief executive office as well as Borrower's mailing address (if different than its chief executive office); (e) Borrower (and each of its predecessors) has not, in the past five (5) years, changed its jurisdiction of formation, organizational structure or type, or any organizational number assigned by its jurisdiction; and (f) all other information set forth on the Perfection Certificate pertaining to Borrower and each of its Subsidiaries is accurate and complete (it being understood and agreed that Borrower may from time to time update certain information in the Perfection Certificate after the Effective Date to the extent permitted by one or more specific provisions in this Agreement). If Borrower is not now a Registered Organization but later becomes one, Borrower shall promptly notify Bank of such occurrence and provide Bank with Borrower's organizational identification number.

The execution, delivery and performance by Borrower of the Loan Documents to which it is a party have been duly authorized, and do not (i) conflict with any of Borrower's organizational documents, (ii) contravene, conflict with, constitute a default under or violate any material Requirement of Law, (iii) contravene, conflict or violate any applicable order, writ, judgment, injunction, decree, determination or award of any Governmental Authority by which Borrower or any of its Subsidiaries or any of their property or assets may be bound or affected, (iv) require any action by, filing, registration, or qualification with, or Governmental Approval from, any Governmental Authority (except such Governmental Approvals which have already been obtained and are in full force and effect), or (v) constitute an event of default under any material agreement by which Borrower is bound. Borrower is not in default under any agreement to which it is a party or by which it is bound in which the default could have a material adverse effect on Borrower's business.

5.2 Collateral. Borrower has good title to, has rights in, and the power to transfer each item of the Collateral upon which it purports to grant a Lien hereunder, free and clear of any and all Liens except Permitted Liens. Borrower has no deposit accounts other than the deposit accounts with Bank, the deposit accounts, if any, described in the Perfection Certificate delivered to Bank in connection herewith, or of which Borrower has given Bank notice and taken such actions as are necessary to give Bank a perfected security interest therein. The Accounts are bona fide, existing obligations of the Account Debtors.

The Collateral is not in the possession of any third party bailee (such as a warehouse) except as otherwise provided in the Perfection Certificate. Other than mobile equipment in the possession of Borrower's employees or agents in an amount not to exceed Fifty Thousand Dollars ($50,000.00) in the aggregate, none of the components of the Collateral shall be maintained at locations other than as provided in the Perfection Certificate or as Borrower has given Bank notice pursuant to Section 7.2. In the event that Borrower, after the date hereof, intends to store or otherwise deliver any portion of the Collateral to a bailee in excess of Fifty Thousand Dollars ($50,000.00), then Borrower will first receive the written consent of Bank and such bailee must execute and deliver a bailee agreement in form and substance satisfactory to Bank in its reasonable discretion.

All Inventory is in all material respects of good and marketable quality, free from material defects.

Except as noted on the Perfection Certificate, Borrower is not a party to, nor is bound by, any material license or other agreement with respect to which Borrower is the licensee (a) that prohibits or otherwise restricts Borrower from granting a security interest in Borrower's interest in such license or agreement or any other property, or (b) for which a default under or termination of which could interfere with the Bank's right to sell any Collateral. Borrower shall provide written notice to Bank within ten (10) days of entering or becoming bound by any such license or agreement (other than over-the-counter software that is commercially available to the public). Borrower shall take such reasonable steps as Bank requests to obtain the consent of, or waiver by, any person whose consent or waiver is necessary for (x) all such licenses or agreements to be deemed "Collateral" and for Bank to have a security interest in it that might otherwise be restricted or prohibited by law or by the terms of any such license or agreement, whether now existing or entered into in the future, and (y) Bank to have the ability in the event of a liquidation of any Collateral to dispose of such Collateral in accordance with Bank's rights and remedies under this Agreement and the other Loan Documents.

5.3 Litigation. There are no actions or proceedings pending or, to the knowledge of the Responsible Officers, threatened in writing by or against Borrower or any of its Subsidiaries involving more than One Hundred Thousand Dollars ($100,000.00).

5.4 No Material Deterioration in Financial Statements. All consolidated financial statements for Borrower and its Subsidiaries delivered to Bank fairly present in all material respects Borrower's consolidated financial condition and Borrower's consolidated results of operations as of the date thereof. There has not been any material deterioration in Borrower's consolidated financial condition since the date of the most recent financial statements submitted to Bank.

5.5 Solvency. The fair salable value of Borrower's assets (including goodwill minus disposition costs) exceeds the fair value of its liabilities; Borrower is not left with unreasonably small capital after the transactions in this Agreement; and Borrower is able to pay its debts (including trade debts) as they mature.

5.6 Regulatory Compliance. Borrower is not an "investment company" or a company "controlled" by an "investment company" under the Investment Company Act of 1940, as amended. Borrower is not engaged as one of its important activities in extending credit for margin stock (under Regulations X, T and U of the Federal Reserve Board of Governors). Borrower has complied in all material respects with the Federal Fair Labor Standards Act. Neither Borrower nor any of its Subsidiaries is a "holding company" or an "affiliate" of a "holding company" or a "subsidiary company" of a "holding company" as each term is defined and used in the Public Utility Holding Company Act of 2005. Borrower has not violated any laws, ordinances or rules, the violation of which could reasonably be expected to have a material adverse effect on its business. None of Borrower's or any of its Subsidiaries' properties or assets has been used by Borrower or any Subsidiary or, to Borrower's knowledge, by previous Persons, in disposing, producing, storing, treating, or transporting any hazardous substance other than legally. Borrower and each of its Subsidiaries have obtained all consents, approvals and authorizations of, made all declarations or filings with, and given all notices to, all Government Authorities that are necessary to continue their respective businesses as currently conducted.

5.7 Subsidiaries; Investments. Borrower does not own any stock, partnership interest or other equity securities except for Permitted Investments.

5.8 Tax Returns and Payments; Pension Contributions. Borrower has timely filed all required tax returns and reports, and Borrower and its Subsidiaries have timely paid all foreign, federal, state and local taxes, assessments, deposits and contributions owed by Borrower. Borrower may defer payment of any contested taxes, provided that Borrower (a) in good faith contests its obligation to pay the taxes by appropriate proceedings promptly and diligently instituted and conducted, (b) notifies Bank in writing of the commencement of, and any material development in, the proceedings, (c) posts bonds or takes any other steps required to prevent the governmental authority levying such contested taxes from obtaining a Lien upon any of the Collateral that is other than a "Permitted Lien". Borrower is unaware of any claims or adjustments proposed for any of Borrower's prior tax years which could result in additional taxes becoming due and payable by Borrower. Borrower has paid all amounts necessary to fund all present pension, profit sharing and deferred compensation plans in accordance with their terms, and Borrower has not withdrawn from participation in, and has not permitted partial or complete termination of, or permitted the occurrence of any other event with respect to, any such plan which could reasonably be expected to result in any liability of Borrower, including any liability to the Pension Benefit Guaranty Corporation or its successors or any other governmental agency.

5.9 Use of Proceeds. Borrower shall use the proceeds of the Credit Extensions solely to fund its general business requirements and not for personal, family, household or agricultural purposes.

5.10 Full Disclosure. No written representation, warranty or other statement of Borrower in any certificate or written statement given to Bank in connection with the Loan Documents, as of the date such representation, warranty, or other statement was made, taken together with all such written certificates and written statements given to Bank in connection with the Loan Documents, contains any untrue statement of a material fact or omits to state a material fact necessary to make the statements contained in the certificates or statements, in light of the circumstances in which they were made, not misleading (it being recognized by Bank that the projections and forecasts provided by Borrower in good faith and based upon reasonable assumptions are not viewed as facts and that actual results during the period or periods covered by such projections and forecasts may differ from the projected or forecasted results).

6 AFFIRMATIVE COVENANTS

Borrower shall do all of the following:

6.1 Government Compliance.

(a) Except as permitted by Section 7.3, maintain its and all its Subsidiaries' legal existence and good standing in their respective jurisdictions of formation and maintain qualification in each jurisdiction in which the failure to so qualify would reasonably be expected to have a material adverse effect on Borrower's business or operations. Borrower shall comply, and have each Subsidiary comply, with all laws, ordinances and regulations to which it is subject, noncompliance with which could have a material adverse effect on Borrower's business.

(b) Obtain all of the Governmental Approvals necessary for the performance by Borrower of its obligations under the Loan Documents to which it is a party and the grant of a security interest to Bank in all of its property. Borrower shall promptly provide copies of any such obtained Governmental Approvals to Bank.

6.2 Financial Statements, Reports, Certificates.

(a) Deliver to Bank: (i) as soon as available, but no later than thirty (30) days after the last day of each month, a company prepared consolidated balance sheet and income statement covering Borrower's consolidated operations for such month certified by a Responsible Officer and in a form acceptable to Bank; (ii) as soon as available, but no later than one hundred eighty (180) days after the last day of Borrower's fiscal year,

audited consolidated financial statements prepared under GAAP, consistently applied, together with an unqualified opinion on the financial statements from Ernst & Young LLP or another independent certified public accounting firm acceptable to Bank in its reasonable discretion; (iii) within five (5) days of delivery, copies of all statements, reports and notices made available to Borrower's security holders or to any holders of Subordinated Debt; (iv) in the event that Borrower becomes subject to the reporting requirements under the Securities Exchange Act of 1934, as amended, within five (5) days of filing, all reports on Form 10-K, 10-Q and 8-K filed with the Securities and Exchange Commission or a link thereto on Borrower's or another website on the internet; (v) a prompt report of any legal actions pending or threatened against Borrower or any of its Subsidiaries that could result in damages or costs to Borrower or any of its Subsidiaries of One Hundred Thousand Dollars ($100,000.00) or more; (vi) annually, no later than the earlier of (A) ten (10) days after approval thereof by the Board, or (B) forty-five (45) days after the last day of Borrower's fiscal year, and contemporaneously with any updates thereto, Board-approved annual financial budget; and (vii) budgets, sales projections, operating plans and other financial information reasonably requested by Bank.

(b) Within thirty (30) days after the last day of each month, deliver to Bank with the monthly financial statements, a duly completed Compliance Certificate signed by a Responsible Officer, together with a summary of Borrower's clinical trials.

6.3 Inventory; Returns. Keep all Inventory in good and marketable condition, free from material defects. Returns and allowances between Borrower and its Account Debtors shall follow Borrower's customary practices as they exist at the Effective Date. Borrower must promptly notify Bank of all returns, recoveries, disputes and claims that involve more than One Hundred Thousand Dollars ($100,000).

6.4 Taxes; Pensions. Timely file, and require each of its Subsidiaries to timely file, all required tax returns and reports and timely pay, and require each of its Subsidiaries to timely file, all foreign, federal, state and local taxes, assessments, deposits and contributions owed by Borrower and each of its Subsidiaries, except for deferred payment of any taxes contested pursuant to the terms of Section 5.8 hereof, and shall deliver to Bank, on demand, appropriate certificates attesting to such payments, and pay all amounts necessary to fund all present pension, profit sharing and deferred compensation plans in accordance with their terms.

6.5 Insurance. Keep its business and the Collateral insured for risks and in amounts standard for companies in Borrower's industry and location and as Bank may reasonably request. Insurance policies shall be in a form, with companies, and in amounts that are satisfactory to Bank, it being agreed that the insurance maintained by Borrower as of the Effective Date is satisfactory to Bank as of the Effective Date. All property policies shall have a loss payable endorsement showing Bank as lender loss payee and waive subrogation against Bank, and all liability policies shall show, or have endorsements showing, Bank as an additional insured. All policies (or the loss payable and additional insured endorsements) shall provide that the insurer must give Bank at least twenty (20) days notice before canceling, amending, or declining to renew its policy. At Bank's request, Borrower shall deliver certified copies of policies and evidence of all premium payments. Proceeds payable under any policy shall, at Bank's option, be payable to Bank on account of the Obligations. Notwithstanding the foregoing, (a) so long as no Event of Default has occurred and is continuing, Borrower shall have the option of applying the proceeds of any casualty policy up to One Hundred Thousand Dollars ($100,000) with respect to any loss, in the aggregate for all losses under all casualty policies in any one year, toward the replacement or repair of destroyed or damaged property; provided that any such replaced or repaired property (i) shall be of equal or like value as the replaced or repaired Collateral and (ii) shall be deemed Collateral in which Bank has been granted a first priority security interest, and (b) after the occurrence and during the continuance of an Event of Default, all proceeds payable under such casualty policy shall, at the option of Bank, be payable to Bank on account of the Obligations. If Borrower fails to obtain insurance as required under this Section 6.5 or to pay any amount or furnish any required proof of payment to third persons and Bank, Bank may make all or part of such payment or obtain such insurance policies required in this Section 6.5, and take any action under the policies Bank deems prudent.

6.6 Accounts.

(a) Except as permitted pursuant to (c) below, maintain its and all of its Subsidiaries' and parent's (i) primary operating and other deposit accounts with Bank, and (ii) securities accounts with Bank and Bank's Affiliates. Any Guarantor shall maintain all depository, operating and securities accounts with Bank, or SVB Securities.

(b) Minimum Balance. Borrower shall maintain at all times, to be tested by Bank as of any day, at least Two Hundred Fifty Thousand Dollars ($250,000.00) in unrestricted and unencumbered cash in an operating account with Bank.

(c) Provide Bank five (5) days prior written notice before establishing any Collateral Account at or with any bank or financial institution other than Bank or Bank's Affiliates. For each Collateral Account that Borrower or Guarantor at any time maintains, Borrower shall cause the applicable bank or financial institution (other than Bank) at or with which any Collateral Account is maintained to execute and deliver a Control Agreement or other appropriate instrument with respect to such Collateral Account to perfect Bank's Lien in such Collateral Account in accordance with the terms hereunder, which Control Agreement may not be terminated without the prior written consent of the Bank. The provisions of the previous sentence shall not apply to deposit accounts exclusively used for payroll, payroll taxes and other employee wage and benefit payments to or for the benefit of Borrower's employees and identified to Bank by Borrower as such.

6.7 Protection of Intellectual Property Rights. Borrower shall use commercially reasonable efforts to: (a) protect, defend and maintain the validity and enforceability of its intellectual property; (b) promptly advise Bank in writing of material infringements of its intellectual property; and (c) not allow any intellectual property material to Borrower's business to be abandoned, forfeited or dedicated to the public without Bank's written consent.

6.8 Litigation Cooperation. From the date hereof and continuing through the termination of this Agreement, make available to Bank, without expense to Bank, Borrower and its officers, employees and agents and Borrower's books and records, to the extent that Bank may deem them reasonably necessary to prosecute or defend any third-party suit or proceeding instituted by or against Bank with respect to any Collateral or relating to Borrower.

6.9 Further Assurances. Execute any further instruments and take further action as Bank reasonably requests to perfect or continue Bank's Lien in the Collateral or to effect the purposes of this Agreement.

7 NEGATIVE COVENANTS

Borrower shall not do any of the following without Bank's prior written consent:

7.1 Dispositions. Convey, sell, lease, transfer or otherwise dispose of (collectively, "**Transfer**"), or permit any of its Subsidiaries to Transfer, all or any part of its business or property, except for Transfers (a) of Inventory in the ordinary course of business; (b) of worn-out, obsolete or surplus Equipment; (c) in connection with Permitted Liens and Permitted Investments; and (d) of non-exclusive licenses for the use of the property of Borrower or its Subsidiaries in the ordinary course of business.

7.2 Changes in Business, Management, Ownership, or Business Locations. (a) Engage in or permit any of its Subsidiaries to engage in any business other than the businesses currently engaged in by Borrower and such Subsidiary, as applicable, or reasonably related thereto; (b) liquidate or dissolve; or (c) (i) if any Key Person ceases to hold such office, with Borrower and replacements satisfactory to Board and Bank are not made within thirty (30) days after such Key Person's departure from Borrower, or (ii) enter into any transaction or series of related transactions in which the stockholders of Borrower who were not stockholders immediately prior to the first such transaction own more than forty percent (40%) of the voting stock of Borrower immediately after giving effect to such transaction or related series of such transactions (other than by the sale of Borrower's equity securities in a public offering or to venture capital or other institutional or strategic investors so long as Borrower identifies to Bank the investors prior to the closing of the transaction). Borrower shall not, without at least thirty (30) days prior written notice to Bank: (1) add any new office or business location, including warehouses (unless each such new office or business location contains less than Twenty-Five Thousand Dollars ($25,000.00) in Borrower's assets or property), (2) change its jurisdiction of organization, (3) change its organizational structure or type, (4) change its legal name, or (5) change any organizational number (if any) assigned by its jurisdiction of organization.

7.3 Mergers or Acquisitions. Merge or consolidate, or permit any of its Subsidiaries to merge or consolidate, with any other Person, or acquire, or permit any of its Subsidiaries to acquire, all or substantially all of the capital stock or property of another Person. A Subsidiary may merge or consolidate into another Subsidiary or into Borrower.

7.4 Indebtedness. Create, incur, assume, or be liable for any Indebtedness, or permit any Subsidiary to do so, other than Permitted Indebtedness.

7.5 Encumbrance. Create, incur, allow, or suffer any Lien on any of its property, or assign or convey any right to receive income, including the sale of any Accounts, or permit any of its Subsidiaries to do so, except for Permitted Liens, or permit any Collateral not to be subject to the first priority security interest granted herein, or enter into any agreement, document, instrument or other arrangement (except with or in favor of Bank) with any Person which directly or indirectly prohibits or has the effect of prohibiting Borrower or any Subsidiary from assigning, mortgaging, pledging, granting a security interest in or upon, or encumbering any of Borrower's or any Subsidiary's intellectual property, except as is otherwise permitted in Section 7.1 hereof and the definition of "Permitted Liens" herein.

7.6 Maintenance of Collateral Accounts. Maintain any Collateral Account except pursuant to the terms of Section 6.6(b) hereof.

7.7 Distributions; Investments. (a) Pay any dividends or make any distribution or payment or redeem, retire or purchase any capital stock provided that (i) Borrower may convert any of its convertible securities into other securities pursuant to the terms of such convertible securities or otherwise in exchange thereof, (ii) Borrower may pay dividends solely in common stock; and (iii) Borrower may repurchase the stock of former employees or consultants pursuant to stock repurchase agreements so long as an Event of Default does not exist at the time of such repurchase and would not exist after giving effect to such repurchase, provided such repurchase does not exceed in the aggregate of Fifty Thousand Dollars ($50,000) per fiscal year; or (b) directly or indirectly make any Investment other than Permitted Investments, or permit any of its Subsidiaries to do so.

7.8 Transactions with Affiliates. Directly or indirectly enter into or permit to exist any material transaction with any Affiliate of Borrower, except for transactions that are in the ordinary course of Borrower's business, upon fair and reasonable terms that are no less favorable to Borrower than would be obtained in an arm's length transaction with a non-affiliated Person.

7.9 Subordinated Debt. (a) Make or permit any payment on any Subordinated Debt, except under the terms of the subordination, intercreditor, or other similar agreement to which such Subordinated Debt is subject, or (b) amend any provision in any document relating to the Subordinated Debt which would increase the amount thereof or adversely affect the subordination thereof to Obligations owed to Bank.

7.10 Compliance. Become an "investment company" or a company controlled by an "investment company", under the Investment Company Act of 1940, as amended, or undertake as one of its important activities extending credit to purchase or carry margin stock (as defined in Regulation U of the Board of Governors of the Federal Reserve System), or use the proceeds of any Credit Extension for that purpose; fail to meet the minimum funding requirements of ERISA; permit a Reportable Event or Prohibited Transaction, as defined in ERISA, to occur; fail to comply with the Federal Fair Labor Standards Act or violate any other law or regulation, if the violation could reasonably be expected to have a material adverse effect on Borrower's business, or permit any of its Subsidiaries to do so; withdraw or permit any Subsidiary to withdraw from participation in, permit partial or complete termination of, or permit the occurrence of any other event with respect to, any present pension, profit sharing and deferred compensation plan which could reasonably be expected to result in any liability of Borrower, including any liability to the Pension Benefit Guaranty Corporation or its successors or any other governmental agency.

7.11 Hospira Indebtedness: (a) Make or permit any payments of principal, interest, fees or other amounts to Hospira, Inc. or its successors and assigns; (b) create, incur, allow, or suffer any Lien on any of its property in favor of Hospira, Inc. or its successors and assigns; or (c) amend any provision in any of the Hospira Documents (with the exception of extending the maturity date, provided that Borrower provides Bank with thirty (30) days prior written notice of such extension).

8 EVENTS OF DEFAULT

Any one of the following shall constitute an event of default (an "**Event of Default**") under this Agreement:

8.1 Payment Default. Borrower fails to (a) make any payment of principal or interest on any Credit Extension on its due date, or (b) pay any other Obligations within three (3) Business Days after such Obligations are due and payable (which three (3) Business Day grace period shall not apply to payments due on the Term Loan Maturity Date, or the date of acceleration pursuant to 9.1(a) herein). During the cure period, the failure to cure the payment default is not an Event of Default (but no Credit Extension will be made during the cure period);

8.2 Covenant Default.

(a) Borrower fails or neglects to perform any obligation in Sections 6.2, 6.4, 6.5, 6.6, 6.7, or 6.8, or violates any covenant in Section 7; or

(b) Borrower fails or neglects to perform, keep, or observe any other term, provision, condition, covenant or agreement contained in this Agreement or any Loan Documents, and as to any default (other than those specified in this Section 8) under such other term, provision, condition, covenant or agreement that can be cured, has failed to cure the default within ten (10) days after the occurrence thereof; provided, however, that if the default cannot by its nature be cured within the ten (10) day period or cannot after diligent attempts by Borrower be cured within such ten (10) day period, and such default is likely to be cured within a reasonable time, then Borrower shall have an additional period (which shall not in any case exceed thirty (30) days) to attempt to cure such default, and within such reasonable time period the failure to cure the default shall not be deemed an Event of Default (but no Credit Extensions shall be made during such cure period). Grace periods provided under this section shall not apply, among other things, to financial covenants or any other covenants set forth in subsection (a) above;

8.3 Material Adverse Change. A Material Adverse Change occurs;

8.4 Attachment; Levy; Restraint on Business.

(a) (i) The service of process seeking to attach, by trustee or similar process, any funds of Borrower or of any entity under control of Borrower (including a Subsidiary) on deposit with Bank or any Bank Affiliate, or (ii) a notice of lien, levy, or assessment is filed against any of Borrower's assets by any government agency, and the same under subclauses (i) and (ii) hereof are not, within ten (10) days after the occurrence thereof, discharged or stayed (whether through the posting of a bond or otherwise); provided, however, no Credit Extensions shall be made during any ten (10) day cure period; and

(b) (i) any material portion of Borrower's assets is attached, seized, levied on, or comes into possession of a trustee or receiver, or (ii) any court order enjoins, restrains, or prevents Borrower from conducting any part of its business;

8.5 Insolvency (a) Borrower is unable to pay its debts (including trade debts) as they become due or otherwise becomes insolvent; (b) Borrower begins an Insolvency Proceeding; or (c) an Insolvency Proceeding is begun against Borrower and not dismissed or stayed within forty-five (45) days (but no Credit Extensions shall be made while of any of the conditions described in clause (a) exist and/or until any Insolvency Proceeding is dismissed);

8.6 Other Agreements. There is a default in any agreement to which Borrower or any Guarantor is a party with a third party or parties resulting in a right by such third party or parties, whether or not exercised, to accelerate the maturity of any Indebtedness in an amount in excess of One Hundred Thousand Dollars ($100,000) or that could have a material adverse effect on Borrower's or any Guarantor's business;

8.7 Judgments. One or more judgments, orders, or decrees for the payment of money in an amount, individually or in the aggregate, of at least One Hundred Thousand Dollars ($100,000) (not covered by independent third-party insurance as to which liability has been accepted by such insurance carrier) shall be rendered against Borrower and shall remain unsatisfied, unvacated, or unstayed for a period of ten (10) days after the entry thereof (provided that no Credit Extensions will be made prior to the satisfaction, vacation, or stay of such judgment, order, or decree);

8.8 Misrepresentations. Borrower or any Person acting for Borrower makes any representation, warranty, or other statement now or later in this Agreement, any Loan Document or in any writing delivered to Bank or to induce Bank to enter this Agreement or any Loan Document, and such representation, warranty, or other statement is incorrect in any material respect when made;

8.9 Subordinated Debt. A default or breach occurs under any agreement between Borrower and any creditor of Borrower that signed a subordination, intercreditor, or other similar agreement with Bank, or any creditor that has signed such an agreement with Bank breaches any terms of such agreement;

8.10 Guaranty. (a) Any guaranty of any Obligations terminates or ceases for any reason (other than termination, discharge or release by Bank) to be in full force and effect; (b) any Guarantor does not perform any obligation or covenant under any guaranty of the Obligations; (c) any circumstance described in Sections 8.3, 8.4, 8.5, 8.7, or 8.8. occurs with respect to any Guarantor; (d) the liquidation, winding up, or termination of existence of any Guarantor; or (e) (i) a material impairment in the perfection or priority of Bank's Lien in the collateral provided by Guarantor or in the value of such collateral or (ii) a material adverse change in the general affairs, management, results of operation, condition (financial or otherwise) or the prospect of repayment of the Obligations occurs with respect to any Guarantor;

8.11 Governmental Approvals. Any Governmental Approval shall have been (a) revoked, rescinded, suspended, modified in an adverse manner or not renewed in the ordinary course for a full term or (b) subject to any decision by a Governmental Authority that designates a hearing with respect to any applications for renewal of any of such Governmental Approval or that could result in the Governmental Authority taking any of the actions described in clause (a) above, and such decision or such revocation, rescission, suspension, modification or non-renewal (i) has, or could reasonably be expected to have, a Material Adverse Change, or (ii) adversely affects the legal qualifications of Borrower or any of its Subsidiaries to hold such Governmental Approval in any applicable jurisdiction and such revocation, rescission, suspension, modification or non-renewal could reasonably be expected to affect the status of or legal qualifications of Borrower or any of its Subsidiaries to hold any Governmental Approval in any other jurisdiction; or

8.12 Hospira Note. Borrower fails to provide Bank with satisfactory evidence on or before the date that is thirty (30) days before the maturity of the Hospira Note, that the Hospira Note has been terminated and converted into equity.

9 BANK'S RIGHTS AND REMEDIES

9.1 Rights and Remedies. While an Event of Default occurs and continues Bank may, without notice or demand, do any or all of the following to the extent not prohibited by applicable law:

(a) declare all Obligations immediately due and payable (but if an Event of Default described in Section 8.5 occurs all Obligations are immediately due and payable without any action by Bank);

(b) stop advancing money or extending credit for Borrower's benefit under this Agreement or under any other agreement between Borrower and Bank;

(c) demand that Borrower (i) deposits cash with Bank in an amount equal to the aggregate amount of any letters of credit remaining undrawn, as collateral security for the repayment of any future drawings under such letters of credit, and Borrower shall forthwith deposit and pay such amounts, and (ii) pay in advance all letter of credit fees scheduled to be paid or payable over the remaining term of any letters of credit;

(d) settle or adjust disputes and claims directly with Account Debtors for amounts on terms and in any order that Bank considers advisable, notify any Person owing Borrower money of Bank's security interest in such funds, and verify the amount of such account;

(e) make any payments and do any acts it considers necessary or reasonable to protect the Collateral and/or its security interest in the Collateral. Borrower shall assemble the Collateral if Bank requests and make it available as Bank designates at any location that is reasonably convenient to Bank and Borrower. Bank may enter premises where the Collateral is located, take and maintain possession of any part of the Collateral, and pay,

purchase, contest, or compromise any Lien which appears to be prior or superior to its security interest and pay all expenses incurred. Borrower grants Bank a license to enter and occupy any of its premises, without charge by Borrower, to exercise any of Bank's rights or remedies;

(f) apply to the Obligations then due any (i) balances and deposits of Borrower it holds, or (ii) any amount held by Bank owing to or for the credit or the account of Borrower;

(g) ship, reclaim, recover, store, finish, maintain, repair, prepare for sale, advertise for sale, and sell the Collateral. Bank is hereby granted a non-exclusive, royalty-free license or other right to use, without charge, Borrower's labels, patents, copyrights, mask works, rights of use of any name, trade secrets, trade names, trademarks, service marks, and advertising matter, or any similar property as it pertains to the Collateral, in completing production of, advertising for sale, and selling any Collateral and, in connection with Bank's exercise of its rights under this Section, Borrower's rights under all licenses and all franchise agreements inure to Bank's benefit;

(h) place a "hold" on any account maintained with Bank and/or deliver a notice of exclusive control, any entitlement order, or other directions or instructions pursuant to any Control Agreement or similar agreements providing control of any Collateral;

(i) demand and receive possession of Borrower's Books; and

(j) exercise all rights and remedies available to Bank under the Loan Documents or at law or equity, including all remedies provided under the Code (including disposal of the Collateral pursuant to the terms thereof).

9.2 Power of Attorney. Borrower hereby irrevocably appoints Bank as its lawful attorney-in-fact, exercisable upon the occurrence and during the continuance of an Event of Default, to: (a) endorse Borrower's name on any checks or other forms of payment or security; (b) sign Borrower's name on any invoice or bill of lading for any Account or drafts against Account Debtors; (c) settle and adjust disputes and claims about the Accounts directly with Account Debtors, for amounts and on terms Bank determines reasonable; (d) make, settle, and adjust all claims under Borrower's insurance policies; (e) pay, contest or settle any Lien, charge, encumbrance, security interest, and adverse claim in or to the Collateral, or any judgment based thereon, or otherwise take any action to terminate or discharge the same; and (f) transfer the Collateral into the name of Bank or a third party as the Code permits. Borrower hereby appoints Bank as its lawful attorney-in-fact to sign Borrower's name on any documents necessary to perfect or continue the perfection of Bank's security interest in the Collateral regardless of whether an Event of Default has occurred until all Obligations (other than inchoate indemnity obligations) have been satisfied in full and Bank is under no further obligation to make Credit Extensions hereunder. Bank's foregoing appointment as Borrower's attorney in fact, and all of Bank's rights and powers, coupled with an interest, are irrevocable until all Obligations have been fully repaid and performed and Bank's obligation to provide Credit Extensions terminates.

9.3 Protective Payments. If Borrower fails to obtain the insurance called for by Section 6.5 or fails to pay any premium thereon or fails to pay any other amount which Borrower is obligated to pay under this Agreement or any other Loan Document, Bank may obtain such insurance or make such payment, and all amounts so paid by Bank are Bank Expenses and immediately due and payable, bearing interest at the then highest applicable rate charged by Bank, and secured by the Collateral. Bank will make reasonable efforts to provide Borrower with notice of Bank obtaining such insurance at the time it is obtained or within a reasonable time thereafter. No payments by Bank are deemed an agreement to make similar payments in the future or Bank's waiver of any Event of Default.

9.4 Application of Payments and Proceeds. Borrower shall have no right to specify the order or the accounts to which Bank shall allocate or apply any payments required to be made by Borrower to Bank or otherwise received by Bank under this Agreement when any such allocation or application is not specified elsewhere in this Agreement. If an Event of Default has occurred and is continuing, Bank may apply any funds in its possession, whether from Borrower account balances, payments, proceeds realized as the result of any collection of Accounts or other disposition of the Collateral, or otherwise, to the Obligations in such order as Bank shall determine in its sole discretion. Any surplus shall be paid to Borrower or other Persons legally entitled thereto; Borrower shall remain liable to Bank for any deficiency. If Bank, in its good faith business judgment, directly or indirectly enters into a

deferred payment or other credit transaction with any purchaser at any sale of Collateral pursuant to Section 9.1, Bank shall have the option, exercisable at any time, of either reducing the Obligations by the principal amount of the purchase price or deferring the reduction of the Obligations until the actual receipt by Bank of cash therefor.

9.5 Bank's Liability for Collateral. So long as Bank complies with applicable law and reasonable banking practices regarding the safekeeping of the Collateral in the possession or under the control of Bank, Bank shall not be liable or responsible for: (a) the safekeeping of the Collateral; (b) any loss or damage to the Collateral; (c) any diminution in the value of the Collateral; or (d) any act or default of any carrier, warehouseman, bailee, or other Person. Borrower bears all risk of loss, damage or destruction of the Collateral.

9.6 No Waiver; Remedies Cumulative. Bank's failure, at any time or times, to require strict performance by Borrower of any provision of this Agreement or any other Loan Document shall not waive, affect, or diminish any right of Bank thereafter to demand strict performance and compliance herewith or therewith. No waiver hereunder shall be effective unless signed by Bank and then is only effective for the specific instance and purpose for which it is given. Bank's rights and remedies under this Agreement and the other Loan Documents are cumulative. Bank has all rights and remedies provided under the Code, by law, or in equity. Bank's exercise of one right or remedy is not an election, and Bank's waiver of any Event of Default is not a continuing waiver. Bank's delay in exercising any remedy is not a waiver, election, or acquiescence.

9.7 Demand Waiver. Borrower waives demand, notice of default or dishonor, notice of payment and nonpayment, notice of any default, nonpayment at maturity, release, compromise, settlement, extension, or renewal of accounts, documents, instruments, chattel paper, and guarantees held by Bank on which Borrower is liable.

10 NOTICES

All notices, consents, requests, approvals, demands, or other communication by any party to this Agreement or any other Loan Document must be in writing and shall be deemed to have been validly served, given, or delivered: (a) upon the earlier of actual receipt and three (3) Business Days after deposit in the U.S. mail, first class, registered or certified mail return receipt requested, with proper postage prepaid; (b) upon transmission, when sent by electronic mail or facsimile transmission; (c) one (1) Business Day after deposit with a reputable overnight courier with all charges prepaid; or (d) when delivered, if hand-delivered by messenger, all of which shall be addressed to the party to be notified and sent to the address, facsimile number, or email address indicated below. Bank or Borrower may change its mailing or electronic mail address or facsimile number by giving the other party written notice thereof in accordance with the terms of this Section 10.

If to Borrower:	Fate Therapeutics, Inc. 10931 N Torrey Pines Road, Suite 107 La Jolla, California 92037 Attn: Chief Financial Officer Fax: (206) 674-3026 Email: scott.wolchko@fatetherapeutics.com
with a copy to:	Goodwin Procter LLP 53 State Street Boston, Massachusetts 02109 Attn: Mark D. Smith Fax: (617) 523-1231 Email: marksmith@goodwinproceter.com
If to Bank:	Silicon Valley Bank 901 Fifth Avenue, Suite 3900 Seattle, Washington 98164 Attn Brian Boatman Fax: (206) 624-0374 Email: BBoatman@svb.com
with a copy to:	Riemer & Braunstein, LLP Three Center Plaza Boston, Massachusetts 02108 Attn: David A. Ephraim, Esquire Fax: (617) 880-3456 Email: DEphraim@riemerlaw.com

11 CHOICE OF LAW, VENUE, AND JURY TRIAL WAIVER

Massachusetts law governs the Loan Documents without regard to principles of conflicts of law. Borrower and Bank each submit to the exclusive jurisdiction of the State and Federal courts in Massachusetts; provided, however, that nothing in this Agreement shall be deemed to operate to preclude Bank from bringing suit or taking other legal action in any other jurisdiction to realize on the Collateral or any other security for the Obligations, or to enforce a judgment or other court order in favor of Bank. Borrower expressly submits and consents in advance to such jurisdiction in any action or suit commenced in any such court, and Borrower hereby waives any objection that it may have based upon lack of personal jurisdiction, improper venue, or forum non conveniens and hereby consents to the granting of such legal or equitable relief as is deemed appropriate by such court. Borrower hereby waives personal service of the summons, complaints, and other process issued in such action or suit and agrees that service of such summons, complaints, and other process may be made by registered or certified mail addressed to Borrower at the address set forth in Section 10 of this Agreement and that service so made shall be deemed completed upon the earlier to occur of Borrower's actual receipt thereof or three (3) days after deposit in the U.S. mails, proper postage prepaid.

TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, BORROWER AND BANK EACH WAIVE THEIR RIGHT TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION ARISING OUT OF OR BASED UPON THIS AGREEMENT, THE LOAN DOCUMENTS OR ANY CONTEMPLATED TRANSACTION, INCLUDING CONTRACT, TORT, BREACH OF DUTY AND ALL OTHER CLAIMS. THIS WAIVER IS A MATERIAL INDUCEMENT FOR BOTH PARTIES TO ENTER INTO THIS AGREEMENT. EACH PARTY HAS REVIEWED THIS WAIVER WITH ITS COUNSEL.

12 GENERAL PROVISIONS

12.1 Successors and Assigns. This Agreement binds and is for the benefit of the successors and permitted assigns of each party. Borrower may not assign this Agreement or any rights or obligations under it without Bank's prior written consent (which may be granted or withheld in Bank's discretion). Bank has the right, without the consent of or notice to Borrower, to sell, transfer, negotiate, or grant participation in all or any part of, or any interest in, Bank's obligations, rights, and benefits under this Agreement and the other Loan Documents.

12.2 Indemnification. Borrower agrees to indemnify, defend and hold Bank and its directors, officers, employees, agents, attorneys, or any other Person affiliated with or representing Bank (each, an "**Indemnified Person**") harmless against: (a) all obligations, demands, claims, and liabilities (collectively, "**Claims**") asserted by any other party in connection with the transactions contemplated by the Loan Documents; and (b) all losses or Bank Expenses incurred, or paid by such Indemnified Person from, following, or arising from transactions between Bank and Borrower (including reasonable attorneys' fees and expenses), except for Claims and/or losses directly caused by such Indemnified Person's gross negligence or willful misconduct.

12.3 Time of Essence. Time is of the essence for the performance of all Obligations in this Agreement.

12.4 Severability of Provisions. Each provision of this Agreement is severable from every other provision in determining the enforceability of any provision.

12.5 Correction of Loan Documents. Bank may correct patent errors and fill in any blanks in this Agreement and the other Loan Documents consistent with the agreement of the parties.

12.6 Amendments in Writing; Integration. All amendments to this Agreement must be in writing and signed by both Bank and Borrower. This Agreement and the Loan Documents represent the entire agreement about this subject matter and supersede prior negotiations or agreements. All prior agreements, understandings, representations, warranties, and negotiations between the parties about the subject matter of this Agreement and the Loan Documents merge into this Agreement and the Loan Documents.

12.7 Counterparts. This Agreement may be executed in any number of counterparts and by different parties on separate counterparts, each of which, when executed and delivered, are an original, and all taken together, constitute one Agreement.

12.8 Survival. All covenants, representations and warranties made in this Agreement continue in full force until this Agreement has terminated pursuant to its terms and all Obligations (other than inchoate indemnity obligations and any other obligations which, by their terms, are to survive the termination of this Agreement) have been satisfied. The obligation of Borrower in Section 12.2 to indemnify Bank shall survive until the statute of limitations with respect to such claim or cause of action shall have run.

12.9 Confidentiality. In handling any confidential information, Bank shall exercise the same degree of care that it exercises for its own proprietary information, but disclosure of information may be made: (a) to Bank's Subsidiaries or Affiliates; (b) to prospective transferees or purchasers of any interest in the Credit Extensions (provided, however, Bank shall use commercially reasonable efforts to obtain such prospective transferee's or purchaser's agreement to the terms of this provision); (c) as required by law, regulation, subpoena, or other order; (d) to Bank's regulators or as otherwise required in connection with Bank's examination or audit; (e) as Bank considers appropriate in exercising remedies under the Loan Documents; and (f) to third-party service providers of Bank so long as such service providers have executed a confidentiality agreement with Bank with terms no less restrictive than those contained herein. Confidential information does not include information that either: (i) is in the public domain or in Bank's possession when disclosed to Bank, or becomes part of the public domain after disclosure to Bank; or (ii) is disclosed to Bank by a third party, if Bank does not know that the third party is prohibited from disclosing the information.

Bank may use confidential information for any purpose, including, without limitation, for the development of client databases, reporting purposes, and market analysis, so long as Bank does not disclose Borrower's identity or the identity of any person associated with Borrower unless otherwise expressly permitted by this Agreement. The provisions of the immediately preceding sentence shall survive the termination of this Agreement.

12.10 Right of Set Off. Borrower hereby grants to Bank, a lien, security interest and right of set off as security for all Obligations to Bank, whether now existing or hereafter arising upon and against all deposits, credits, collateral and property, now or hereafter in the possession, custody, safekeeping or control of Bank or any entity

under the control of Bank (including a Bank subsidiary) or in transit to any of them. At any time after the occurrence and during the continuance of an Event of Default, without demand or notice, Bank may set off the same or any part thereof and apply the same to any liability or obligation of Borrower then due, regardless of the adequacy of any other collateral securing the Obligations. ANY AND ALL RIGHTS TO REQUIRE BANK TO EXERCISE ITS RIGHTS OR REMEDIES WITH RESPECT TO ANY OTHER COLLATERAL WHICH SECURES THE OBLIGATIONS, PRIOR TO EXERCISING ITS RIGHT OF SETOFF WITH RESPECT TO SUCH DEPOSITS, CREDITS OR OTHER PROPERTY OF BORROWER ARE HEREBY KNOWINGLY, VOLUNTARILY AND IRREVOCABLY WAIVED.

13 DEFINITIONS

13.1 Definitions. As used in this Agreement, the following terms have the following meanings:

"**Account**" is any "account" as defined in the Code with such additions to such term as may hereafter be made, and includes, without limitation, all accounts receivable and other sums owing to Borrower.

"**Account Debtor**" is any "account debtor" as defined in the Code with such additions to such term as may hereafter be made.

"**Affiliate**" of any Person is a Person that owns or controls directly or indirectly the Person, any Person that controls or is controlled by or is under common control with the Person, and each of that Person's senior executive officers, directors, partners and, for any Person that is a limited liability company, that Person's managers and members.

"**Agreement**" is defined in the preamble hereof.

"**Bank**" is defined in the preamble hereof.

"**Bank Expenses**" are all documented audit fees and expenses, costs, and expenses (including reasonable documented attorneys' fees and expenses) for preparing, amending, negotiating, administering, defending and enforcing the Loan Documents (including, without limitation, those incurred in connection with appeals or Insolvency Proceedings) or otherwise incurred with respect to Borrower.

"**Borrower**" is defined in the preamble hereof

"**Borrower's Books**" are all Borrower's books and records including ledgers, federal and state tax returns, records regarding Borrower's assets or liabilities, the Collateral, business operations or financial condition, and all computer programs or storage or any equipment containing such information.

"**Borrowing Resolutions**" are, with respect to any Person, those resolutions adopted by such Person's Board of Directors and delivered by such Person to Bank approving the Loan Documents to which such Person is a party and the transactions contemplated thereby, together with a certificate executed by its secretary on behalf of such Person certifying that (a) such Person has the authority to execute, deliver, and perform its obligations under each of the Loan Documents to which it is a party, (b) that attached as Exhibit A to such certificate is a true, correct, and complete copy of the resolutions then in full force and effect authorizing and ratifying the execution, delivery, and performance by such Person of the Loan Documents to which it is a party, (c) the name(s) of the Person(s) authorized to execute the Loan Documents on behalf of such Person, together with a sample of the true signature(s) of such Person(s), and (d) that Bank may conclusively rely on such certificate unless and until such Person shall have delivered to Bank a further certificate canceling or amending such prior certificate.

"**Business Day**" is any day that is not a Saturday, Sunday or a day on which Bank is closed.

"**Cash Equivalents**" means (a) marketable direct obligations issued or unconditionally guaranteed by the United States or any agency or any State thereof having maturities of not more than one (1) year from the date of acquisition; (b) commercial paper maturing no more than one (1) year after its creation and having the highest rating from either Standard & Poor's Ratings Group or Moody's Investors Service, Inc.; (c) Bank's certificates of deposit issued maturing no more than one (1) year after issue; and (d) money market funds at least ninety-five percent (95%) of the assets of which constitute Cash Equivalents of the kinds described in clauses (a) through (c) of this definition.

"**Code**" is the Uniform Commercial Code, as the same may, from time to time, be enacted and in effect in the Commonwealth of Massachusetts; provided, that, to the extent that the Code is used to define any term herein or in any Loan Document and such term is defined differently in different Articles or Divisions of the Code, the definition of such term contained in Article or Division 9 shall govern; provided further, that in the event that, by reason of mandatory provisions of law, any or all of the attachment, perfection, or priority of, or remedies with respect to, Bank's Lien on any Collateral is governed by the Uniform Commercial Code in effect in a jurisdiction other than the Commonwealth of Massachusetts, the term "**Code**" shall mean the Uniform Commercial Code as enacted and in effect in such other jurisdiction solely for purposes of the provisions thereof relating to such attachment, perfection, priority, or remedies and for purposes of definitions relating to such provisions.

"**Collateral**" is any and all properties, rights and assets of Borrower described on Exhibit A.

"**Collateral Account**" is any Deposit Account, Securities Account, or Commodity Account.

"**Commodity Account**" is any "commodity account" as defined in the Code with such additions to such term as may hereafter be made.

"**Compliance Certificate**" is that certain certificate in the form attached hereto as Exhibit C.

"**Contingent Obligation**" is, for any Person, any direct or indirect liability, contingent or not, of that Person for (a) any indebtedness, lease, dividend, letter of credit or other obligation of another such as an obligation directly or indirectly guaranteed, endorsed, co-made, discounted or sold with recourse by that Person, or for which that Person is directly or indirectly liable; (b) any obligations for undrawn letters of credit for the account of that Person; and (c) all obligations from any interest rate, currency or commodity swap agreement, interest rate cap or collar agreement, or other agreement or arrangement designated to protect a Person against fluctuation in interest rates, currency exchange rates or commodity prices; but "Contingent Obligation" does not include endorsements in the ordinary course of business. The amount of a Contingent Obligation is the stated or determined amount of the primary obligation for which the Contingent Obligation is made or, if not determinable, the maximum reasonably anticipated liability for it determined by the Person in good faith; but the amount may not exceed the maximum of the obligations under any guarantee or other support arrangement.

"**Control Agreement**" is any control agreement entered into among the depository institution at which Borrower maintains a Deposit Account or the securities intermediary or commodity intermediary at which Borrower maintains a Securities Account or a Commodity Account, Borrower, and Bank pursuant to which Bank obtains control (within the meaning of the Code) over such Deposit Account, Securities Account, or Commodity Account.

"**Credit Extension**" is any Term Advance, or any other extension of credit by Bank for Borrower's benefit.

"**Default Rate**" is defined in Section 2.2(b).

"**Deposit Account**" is any "deposit account" as defined in the Code with such additions to such term as may hereafter be made.

"**Designated Deposit Account**" is Borrower's deposit account, account number , maintained with Bank.

"**Dollars**," "**dollars**" and "**$**" each mean lawful money of the United States.

"**Effective Date**" is the date set forth on the preamble of this Agreement.

"**Equipment**" is all "equipment" as defined in the Code with such additions to such term as may hereafter be made, and includes without limitation all machinery, fixtures, goods, vehicles (including motor vehicles and trailers), and any interest in any of the foregoing.

"**ERISA**" is the Employee Retirement Income Security Act of 1974, and its regulations.

"**Event of Default**" is defined in Section 8.

"**Funding Date**" is any date on which a Credit Extension is made to or on account of Borrower which shall be a Business Day.

"**GAAP**" is generally accepted accounting principles set forth in the opinions and pronouncements of the Accounting Principles Board of the American Institute of Certified Public Accountants and statements and pronouncements of the Financial Accounting Standards Board or in such other statements by such other Person as may be approved by a significant segment of the accounting profession, which are applicable to the circumstances as of the date of determination.

"**General Intangibles**" is all "general intangibles" as defined in the Code in effect on the date hereof with such additions to such term as may hereafter be made, and includes without limitation, all copyright rights, copyright applications, copyright registrations and like protections in each work of authorship and derivative work, whether published or unpublished, any patents, trademarks, service marks and, to the extent permitted under applicable law, any applications therefor, whether registered or not, any trade secret rights, including any rights to unpatented inventions, payment intangibles, royalties, contract rights, goodwill, franchise agreements, purchase orders, customer lists, route lists, telephone numbers, domain names, claims, income and other tax refunds, security and other deposits, options to purchase or sell real or personal property, rights in all litigation presently or hereafter pending (whether in contract, tort or otherwise), insurance policies (including without limitation key man, property damage, and business interruption insurance), payments of insurance and rights to payment of any kind.

"**Governmental Approval**" is any consent, authorization, approval, order, license, franchise, permit, certificate, accreditation, registration, filing or notice, of, issued by, from or to, or other act by or in respect of, any Governmental Authority.

"**Governmental Authority**" is any nation or government, any state or other political subdivision thereof, any agency, authority, instrumentality, regulatory body, court, central bank or other entity exercising executive, legislative, judicial, taxing, regulatory or administrative functions of or pertaining to government, any securities exchange and any self-regulatory organization.

"**Guarantor**" is any present or future guarantor of the Obligations.

"**Hospira Documents**" means the Note and Warrant Purchase Agreement and Hospira Note, each dated as of April 29, 2008, and the other documents referred to therein.

"**Hospira Note**" is that certain Convertible Promissory Note dated as of April 29, 2008.

"**Indebtedness**" is (a) indebtedness for borrowed money or the deferred price of property or services, such as reimbursement and other obligations for surety bonds and letters of credit, (b) obligations evidenced by notes, bonds, debentures or similar instruments, (c) capital lease obligations, and (d) Contingent Obligations.

"**Indemnified Person**" is defined in Section 12.2.

"**Insolvency Proceeding**" is any proceeding by or against any Person under the United States Bankruptcy Code, or any other bankruptcy or insolvency law, including assignments for the benefit of creditors, compositions, extensions generally with its creditors, or proceedings seeking reorganization, arrangement, or other relief.

"**Inventory**" is all "inventory" as defined in the Code in effect on the date hereof with such additions to such term as may hereafter be made, and includes without limitation all merchandise, raw materials, parts, supplies, packing and shipping materials, work in process and finished products, including without limitation such inventory as is temporarily out of Borrower's custody or possession or in transit and including any returned goods and any documents of title representing any of the above.

"**Investment**" is any beneficial ownership interest in any Person (including stock, partnership interest or other securities), and any loan, advance or capital contribution to any Person.

"**Key Person**" is any of Borrower's Chief Executive Officer, Executive Chairman, and Vice President-Finance, who are, as of the Effective Date, Paul Grayson, Dr. John Mendlein, and Scott Wolchko.

"**Lien**" is a claim, mortgage, deed of trust, levy, charge, pledge, security interest or other encumbrance of any kind, whether voluntarily incurred or arising by operation of law or otherwise against any property.

"**Loan Documents**" are, collectively, this Agreement, the Warrant, the Perfection Certificate, any subordination agreements, any note, or notes or guaranties executed by Borrower or any Guarantor, and any other present or future agreement between Borrower any Guarantor and/or for the benefit of Bank in connection with this Agreement, all as amended, restated, or otherwise modified.

"**Material Adverse Change**" is (a) a material impairment in the perfection or priority of Bank's Lien in the Collateral or in the value of such Collateral; (b) a material adverse change in the business, operations, or condition (financial or otherwise) of Borrower; or (c) a material impairment of the prospect of repayment of any portion of the Obligations.

"**Obligations**" are Borrower's obligation to pay when due any debts, principal, interest, Bank Expenses, and other amounts Borrower owes Bank now or later, whether under this Agreement, the Loan Documents, or otherwise, including, without limitation, all obligations relating to letters of credit (including reimbursement obligations for drawn and undrawn letters of credit), cash management services, and foreign exchange contracts, if any, and including interest accruing after Insolvency Proceedings begin and debts, liabilities, or obligations of Borrower assigned to Bank, and the performance of Borrower's duties under the Loan Documents.

"Operating Documents" are, for any Person, such Person's formation documents, as certified with the Secretary of State of such Person's state of formation on a date that is no earlier than thirty (30) days prior to the Effective Date, and, (a) if such Person is a corporation, its bylaws in current form, (b) if such Person is a limited liability company, its limited liability company agreement (or similar agreement), and (c) if such Person is a partnership, its partnership agreement (or similar agreement), each of the foregoing with all current amendments or modifications thereto.

"**Payment/Advance Form**" is that certain form attached hereto as Exhibit B.

"**Payment Date**" is the first (1st) calendar day of each month.

"**Perfection Certificate**" is defined in Section 5.1.

"**Permitted Indebtedness**" is:

(a) Borrower's Indebtedness to Bank under this Agreement and the other Loan Documents;

(b) Indebtedness existing on the Effective Date and shown on the Perfection Certificate;

(c) Subordinated Debt;

(d) unsecured Indebtedness to trade creditors incurred in the ordinary course of business;

(e) Indebtedness incurred as a result of endorsing negotiable instruments received in the ordinary course of business;

(f) Indebtedness secured by Permitted Liens;

(g) Indebtedness of Borrower in favor of Hospira, Inc. or its successors and assigns, up to principal amount of Seven Million Five Hundred Thousand Dollars ($7,500,000); and

(h) extensions, refinancings, modifications, amendments and restatements of any items of Permitted Indebtedness (a) through (g) above, provided that the principal amount thereof is not increased or the terms thereof are not modified to impose more burdensome terms upon Borrower or its Subsidiary, as the case may be.

"**Permitted Investments**" are:

(a) Investments shown on the Perfection Certificate and existing on the Effective Date;

(b) Cash Equivalents;

(c) Investments consisting of the endorsement of negotiable instruments for deposit or collection or similar transactions in the ordinary course of Borrower;

(d) Investments consisting of deposit accounts with Bank or in which Bank has a first perfected security interest;

(e) Investments accepted in connection with Transfers permitted by Section 7.1;

(f) Investments consisting of (i) travel advances and employee relocation loans and other employee loans and advances in the ordinary course of business, and (ii) loans to employees, officers or directors relating to the purchase of equity securities of Borrower or its Subsidiaries pursuant to employee stock purchase plans or agreements approved by Borrower's Board of Directors in an amount not to exceed Twenty-Five Thousand Dollars ($25,000) in the aggregate per fiscal year;

(g) Investments (including debt obligations) received in connection with the bankruptcy or reorganization of customers or suppliers and in settlement of delinquent obligations of, and other disputes with, customers or suppliers arising in the ordinary course of business; and

(h) Investments consisting of notes receivable of, or prepaid royalties and other credit extensions, to customers and suppliers who are not Affiliates, in the ordinary course of business; provided that this paragraph (i) shall not apply to Investments of Borrower in any Subsidiary.

"**Permitted Liens**" are:

(a) Liens existing on the Effective Date and shown on the Perfection Certificate or arising under this Agreement and the other Loan Documents;

(b) Liens for taxes, fees, assessments or other government charges or levies, either not delinquent or being contested in good faith and for which Borrower maintains adequate reserves on its Books, provided that no notice of any such Lien has been filed or recorded under the Internal Revenue Code of 1986, as amended, and the Treasury Regulations adopted thereunder;

(c) purchase money Liens (i) on Equipment acquired or held by Borrower incurred for financing the acquisition of the Equipment securing no more than One Hundred Thousand Dollars ($100,000.00) in the aggregate amount outstanding, or (ii) existing on Equipment when acquired, if the Lien is confined to the property and improvements and the proceeds of the Equipment;

(d) Liens of carriers, warehousemen, suppliers, or other Persons that are possessory in nature arising in the ordinary course of business so long as such Liens attach only to Inventory, securing liabilities in the aggregate amount not to exceed $50,000 and which are not delinquent or remain payable without penalty or which are being contested in good faith and by appropriate proceedings, which proceedings have the effect of preventing the forfeiture or sale of the property subject thereto;

(e) Liens to secure payment of workers' compensation, employment insurance, old age pensions, social security and other like obligations incurred in the ordinary course of business (other than Liens imposed by ERISA);

(f) Liens incurred in the extension, renewal or refinancing of the indebtedness secured by Liens described in (a) through (c), but any extension, renewal or replacement Lien must be limited to the property encumbered by the existing Lien and the principal amount of the indebtedness may not increase;

(g) leases or subleases of real property granted in the ordinary course of business, and leases, subleases, non-exclusive licenses or sublicenses of property (other than real property or intellectual property) granted in the ordinary course of Borrower's business, if the leases, subleases, licenses and sublicenses do not prohibit granting Bank a security interest;

(h) license (which may be exclusive as to limited properties, uses, territories and/or time periods) of intellectual property granted to third parties in the ordinary course of business;

(i) Liens arising from attachments or judgments, orders, or decrees in circumstances not constituting an Event of Default under Sections 8.4 and 8.7; and

(j) Liens in favor of other financial institutions arising in connection with Borrower's deposit and/or securities accounts held at such institutions, provided that Bank has a first perfected security interest in the amounts held in such deposit and/or securities accounts.

"**Person**" is any individual, sole proprietorship, partnership, limited liability company, joint venture, company, trust, unincorporated organization, association, corporation, institution, public benefit corporation, firm, joint stock company, estate, entity or government agency.

"**Prime Rate**" is the greater of (i) Bank's most recently announced "prime rate," even if it is not Bank's lowest rate; and (ii) five percent (5.0%).

"**Registered Organization**" is any "registered organization" as defined in the Code with such additions to such term as may hereafter be made

"**Requirement of Law**" is as to any Person, the organizational or governing documents of such Person, and any law (statutory or common), treaty, rule or regulation or determination of an arbitrator or a court or other Governmental Authority, in each case applicable to or binding upon such Person or any of its property or to which such Person or any of its property is subject.

"**Responsible Officer**" is any of the Chief Executive Officer, President, Chief Financial Officer and Controller of Borrower.

"**Securities Account**" is any "securities account" as defined in the Code with such additions to such term as may hereafter be made.

"**Subordinated Debt**" is (i) unsecured convertible promissory notes of Borrower with terms substantially identical to the Hospira Note and subordinated to all of Borrower's now or hereafter indebtedness to Bank (pursuant to a Subordination Agreement in the form attached as Exhibit D entered into between Bank and the other creditor), provided that such transactions are (x) approved by Borrower's Board of Directors, and (y) with large U.S. based public pharmaceutical companies, and (ii) indebtedness incurred by Borrower subordinated to all of Borrower's now or hereafter indebtedness to Bank (pursuant to a subordination, intercreditor, or other similar agreement in form and substance satisfactory to Bank entered into between Bank and the other creditor), on terms acceptable to Bank.

"**Subsidiary**" means, with respect to any Person, any Person of which more than 50.0% of the voting stock or other equity interests (in the case of Persons other than corporations) is owned or controlled directly or indirectly by such Person or one or more of Affiliates of such Person.

"**Term Loan Amount**" is an amount equal to Three Million Dollars ($3,000,000.00).

"**Term Loan Maturity Date**" is February 1, 2012.

"**Term Loan Payment**" is defined in Section 2.1.1(c).

"**Transfer**" is defined in Section 7.1.

"**Warrant**" is that certain Warrant to Purchase Stock dated as of the Effective Date executed by Borrower in favor of Bank.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed as a sealed instrument under the laws of the Commonwealth of Massachusetts as of the Effective Date.

BORROWER:

FATE THERAPEUTICS, INC.

By /s/ Scott Wolchko
Name: Scott Wolchko
Title: CFO, Treasurer & Secretary

BANK:

SILICON VALLEY BANK

By /s/ Minh Le
Name: Minh Le
Title: Relationship Manager

EXHIBIT A – COLLATERAL DESCRIPTION

The Collateral consists of all of Borrower's right, title and interest in and to the following personal property:

All goods, Accounts (including health-care receivables), Equipment, Inventory, contract rights or rights to payment of money, leases, license agreements, franchise agreements, General Intangibles (except as provided below), commercial tort claims, documents, instruments (including any promissory notes), chattel paper (whether tangible or electronic), cash, deposit accounts, all certificates of deposit, fixtures, letters of credit rights (whether or not the letter of credit is evidenced by a writing), securities, and all other investment property, supporting obligations, and financial assets, whether now owned or hereafter acquired, wherever located; and

all Borrower's Books relating to the foregoing, and any and all claims, rights and interests in any of the above and all substitutions for, additions, attachments, accessories, accessions and improvements to and replacements, products, proceeds and insurance proceeds of any or all of the foregoing.

Notwithstanding the foregoing, the Collateral does not include any of the following, whether now owned or hereafter acquired, any copyright rights, copyright applications, copyright registrations and like protections in each work of authorship and derivative work, whether published or unpublished, any patents, patent applications and like protections, including improvements, divisions, continuations, renewals, reissues, extensions, and continuations-in-part of the same, trademarks, service marks and, to the extent permitted under applicable law, any applications therefor, whether registered or not, and the goodwill of the business of Borrower connected with and symbolized thereby, know-how, operating manuals, trade secret rights, rights to unpatented inventions, and any claims for damage by way of any past, present, or future infringement of any of the foregoing; provided, however, the Collateral shall include all Accounts, license and royalty fees and other revenues, proceeds, or income arising out of or relating to any of the foregoing.

Pursuant to the terms of a certain negative pledge arrangement with Bank, Borrower has agreed not to encumber any of its copyright rights, copyright applications, copyright registrations and like protections in each work of authorship and derivative work, whether published or unpublished, any patents, patent applications and like protections, including improvements, divisions, continuations, renewals, reissues, extensions, and continuations-in-part of the same, trademarks, service marks and, to the extent permitted under applicable law, any applications therefor, whether registered or not, and the goodwill of the business of Borrower connected with and symbolized thereby, know-how, operating manuals, trade secret rights, rights to unpatented inventions, and any claims for damage by way of any past, present, or future infringement of any of the foregoing, without Bank's prior written consent.

EXHIBIT 10.17

AMENDMENT NO. 1
TO
LOAN AND SECURITY AGREEMENT

THIS **AMENDMENT NO. 1** to Loan and Security Agreement (this "Amendment") is entered into this 4th day of May, 2010, by and between FATE THERAPEUTICS, INC., a Delaware corporation ("Borrower") and SILICON VALLEY BANK, a California banking corporation ("SVB" or "Bank"). Capitalized terms used herein without definition shall have the same meanings given in the Loan Agreement (as defined below).

RECITALS

A. Bank and Borrower have entered into that certain Loan and Security Agreement dated as of January 5, 2009 (as amended, restated, supplemented or otherwise modified, the "Loan Agreement").

B. Bank has extended credit to Borrower for the purposes permitted in the Loan Agreement. Borrower desires that Bank amend the Loan Agreement upon the terms and conditions more fully set forth herein.

C. Borrower has provided notice to Bank of its proposed acquisition of Verio Therapeutics Inc., a corporation existing under the Canada Business Corporations Act ("Verio"), pursuant to that certain Share Purchase Agreement (the "Acquisition Agreement") by and among Borrower, Verio, Fate Therapeutics (Canada) Inc., a corporation existing under the Canada Business Corporations Act ("Fate Canada"), and the Vendors party thereto (the "Acquisition"). Fate Canada is a Subsidiary of Borrower and, following the Acquisition, Verio will become a Subsidiary of Fate Canada.

D. Borrower has provided notice to Bank of its proposed acquisition of 50% of the capital stock of Destin Therapeutics, Inc., a corporation existing under the Canada Business Corporations Act ("Destin"), in connection with the Acquisition.

E. Subject to the representations and warranties of Borrower herein and upon the terms and conditions set forth in this Amendment, Bank is willing to amend the Loan Agreement.

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing recitals and other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, and intending to be legally bound, the parties hereto agree as follows:

1. Amendments to Loan Agreement.

1.1 Section 4 (Creation of Security Interest). Section 4 is hereby amended by adding Section 4.3 (Delivery of Stock Certificates) as follows:

"**4.3 Delivery of Stock Certificates**. Borrower agrees to deliver to Bank stock certificates, and accompanying assignments separate from certificate, to effectuate the pledge to Bank of (a) not less than 65% of the total outstanding voting shares of Fate Canada; and (b) 100% of the voting shares of Destin owned by Borrower at all times, but in no event greater than 65% of the total outstanding voting shares of Destin."

1.2 Section 13.1 (Definitions). The definition of "Permitted Investments" in Section 13.1 is hereby amended by adding subsections (i) and (j) as follows:

"(i) Investments in Fate Canada, Destin and Verio not to exceed the lesser of (a) $2,500,000 in the aggregate per year, and (b) the amount necessary to cover trade expenses and general operating expenses of Fate Canada, Destin and Verio in the normal course of business, as supported by appropriate documentation satisfactory to Bank.

(j) Investments in deposit accounts held by Fate Canada, Destin or Verio in an amount not to exceed $250,000 per year for the purpose of general operating expenses."

1.3 Section 13.1 (Definitions). Each of the following definitions are hereby added to Section 13.1 in their appropriate alphabetical order as follows:

""**Acquisition Agreement**" that certain Share Purchase Agreement by and among Borrower, Verio, Fate Canada and the Vendors party thereto."

""**Destin**" is Destin Therapeutics, Inc., a corporation existing under the Canada Business Corporations Act."

""**Fate Canada**" is Fate Therapeutics (Canada) Inc., a corporation existing under the Canada Business Corporations Act, and a Subsidiary of Borrower."

""**Verio**" is Verio Therapeutics, Inc., a corporation existing under the Canada Business Corporations Act, and a Subsidiary of Fate Canada."

1.4 Exhibit C of the Loan Agreement. Exhibit C (Compliance Certificate) of the Loan Agreement is amended and restated in its entirety with Exhibit A attached hereto.

2. Limitation of Amendments.

2.1 The amendments set forth in **Section 1**, above, are effective for the purposes set forth herein and shall be limited precisely as written and shall not be deemed to (a) be a consent to any amendment, waiver or other modification of any other term or condition of any Loan Document, or (b) otherwise prejudice any right or remedy which SVB may now have or may have in the future under or in connection with any Loan Document.

2.2 This Amendment shall be construed in connection with and as part of the Loan Documents and all terms, conditions, representations, warranties, covenants and agreements set forth in the Loan Documents, except as herein amended, are hereby ratified and confirmed and shall remain in full force and effect.

3. Representations and Warranties. To induce SVB to enter into this Amendment, Borrower hereby represents and warrants to SVB as follows:

3.1 Immediately after giving effect to this Amendment (a) the representations and warranties contained in the Loan Documents are true, accurate and complete in all material respects as of the date hereof (except to the extent such representations and warranties relate to an earlier date, in which case they are true and correct as of such date), and (b) no Event of Default has occurred and is continuing;

3.2 Borrower has the power and authority to execute and deliver this Amendment and to perform its obligations under the Loan Agreement, as amended by this Amendment;

3.3 The organizational documents of Borrower remain true, accurate and complete and have not been amended, supplemented or restated and are and continue to be in full force and effect;

3.4 The execution and delivery by Borrower of this Amendment and the performance by Borrower of the obligations under the Loan Agreement, as amended by this Amendment, have been duly authorized;

3.5 The execution and delivery by Borrower of this Amendment and the performance by Borrower of the obligations under the Loan Agreement, as amended by this Amendment, do not and will not contravene (a) any law or regulation binding on or affecting Borrower, (b) any contractual restriction with a Person binding on Borrower, (c) any order, judgment or decree of any court or other governmental or public body or authority, or subdivision thereof, binding on Borrower, or (d) the organizational documents of Borrower;

3.6 The execution and delivery by Borrower of this Amendment and the performance by Borrower of the obligations under the Loan Agreement, as amended by this Amendment, do not require any order, consent, approval, license, authorization or validation of, or filing, recording or registration with, or exemption by any governmental or public body or authority, or subdivision thereof, binding on Borrower, except as already has been obtained or made; and

3.7 This Amendment has been duly executed and delivered by Borrower and is the binding obligation of Borrower, enforceable against Borrower in accordance with its terms, except as such enforceability may be limited by bankruptcy, insolvency, reorganization, liquidation, moratorium or other similar laws of general application and equitable principles relating to or affecting creditors' rights.

4. Counterparts. This Amendment may be executed in any number of counterparts and all of such counterparts taken together shall be deemed to constitute one and the same instrument.

5. Effectiveness. This Amendment shall be deemed effective upon (i) the due execution and delivery of this Amendment by each party hereto and delivery of same to SVB; and (ii) Borrower's pledge to Bank and proper perfection of the security interest of Bank, which actions include delivery of possession of applicable stock certificates and assignments separate from certificate executed in blank, in (a) not less than 65% of the total outstanding voting shares of Fate Canada, and (b) not less than 100% of the voting shares of Destin owned by Borrower, but in no event greater than 65% of the total outstanding voting shares of Destin.

IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be duly executed and delivered as of the date first written above.

FATE THERAPEUTICS, INC.,
a Delaware corporation

By: /s/ Scott Wolchko
Name: Scott Wolchko
Title: CFO

SILICON VALLEY BANK,
a California banking corporation

By: /s/ Sarah Larson
Name: Sarah Larson
Title: Relationship manager

EXHIBIT 10.18

SECOND AMENDMENT
TO
LOAN AND SECURITY AGREEMENT

THIS **SECOND AMENDMENT** to Loan and Security Agreement (this "Amendment") is entered into this 25th day of August, 2011 by and between Silicon Valley Bank ("Bank") and FATE THERAPEUTICS, INC., a Delaware corporation ("Borrower") whose address is 3535 General Atomics Court, Suite 200, San Diego, CA 92121.

RECITALS

A. Bank and Borrower have entered into that certain Loan and Security Agreement dated as of January 5, 2009, as amended by that certain Amendment No. 1 to Loan and Security Agreement dated as of May 4, 2010 (as the same may from time to time be further amended, modified, supplemented or restated, the "Loan Agreement").

B. Bank has extended credit to Borrower for the purposes permitted in the Loan Agreement.

C. Borrower has requested that Bank amend the Loan Agreement to (i) refinance Borrower's existing Obligations to Bank with a new Term Loan and (ii) make certain other revisions to the Loan Agreement as more fully set forth herein.

D. Bank has agreed to so amend certain provisions of the Loan Agreement, but only to the extent, in accordance with the terms, subject to the conditions and in reliance upon the representations and warranties set forth below.

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing recitals and other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, and intending to be legally bound, the parties hereto agree as follows:

1. Definitions. Capitalized terms used but not defined in this Amendment shall have the meanings given to them in the Loan Agreement.

2. Amendments to Loan Agreement.

2.1 Borrower shall deliver to Bank a landlord waiver for Borrower's location at 3535 General Atomics Court, Suite 200, San Diego, CA 92121, in form and substance satisfactory to Bank by no later than September 24, 2011.

2.2 Section 2.1.1 (Term Loan). Section 2.1.1 of the Loan Agreement is amended in its entirety to read as follows:

(a) Availability. Subject to the terms and conditions of this Agreement, on the Second Amendment Date, or as soon thereafter as is practical, Bank shall make a Term Advance to Borrower in the aggregate principal amount of $2,000,000, which shall be used (i) to refinance all Indebtedness owing from Borrower to Bank as of the Second Amendment Date and (ii) for general working capital (the "Tranche A Term Advance"). In addition, within ten (10) Business Days of Borrower providing Bank satisfactory evidence of the commencement of Borrower's next clinical trial of the therapeutic program known by and between Bank and Borrower as "FT1050", Bank shall make an additional Term Advance to Borrower in the aggregate principal amount of $2,000,000 (the "Tranche B Term Advance", and together with the Tranche A Term Advance, the "Term Advances"); provided, however, that the commencement of

such clinical trial (y) has been approved by Borrower's Board of Directors and (z) occurs prior to December 31, 2011, each as confirmed by due diligence calls between Bank and Borrower's management and/or Board of Directors. The Term Advances may not exceed the Term Loan Amount.

(b) Interest Payments. Commencing on the first Payment Date of the month following the month in which the Funding Date of each Term Advance occurs, Borrower shall make monthly payments of interest in connection with each Term Advance at the rate set forth in Section 2.2(a).

(c) Repayment. Commencing on the twelfth (12th) month following the Funding Date of each Term Advance, and continuing on the Payment Date of each month thereafter, Borrower shall repay each Term Advance in (i) twenty-four (24) equal installments of principal, plus (ii) monthly payments of accrued interest at the rate set forth in Section 2.2(a) (each, a "Term Loan Payment"). For each Term Advance, Borrower's final Term Loan Payment, due on the Term Loan Maturity Date of such Term Advance, shall include (y) all outstanding principal and accrued and unpaid interest under such Term Advance and (z) an additional final payment equal to 5.00% of such Term Advance (the "Final Payment"). After repayment, each Term Advance may not be re-borrowed.

(d) Mandatory Prepayment. If a Term Advance is accelerated following the occurrence and during the continuance of an Event of Default, or if Borrower voluntarily prepays any Term Advance for any reason on or before the date eighteen (18) months after the Second Amendment Date, Borrower shall immediately pay to Bank, in addition to any other sums owing, a termination fee equal to 2.50% of the applicable Term Advance (the "Term Loan Termination Fee"). Such Term Loan Termination Fee shall bear interest until paid at a rate equal to the highest rate applicable to the Obligations. Notwithstanding the foregoing, if Borrower prepays any Term Advance at any time with a new credit facility from Bank, the Term Loan Termination Fee shall not be applied to such Term Advance.

(e) Permitted Prepayment of Term Advances. So long as no Event of Default has occurred and is continuing, Borrower shall have the option to prepay all, but not less than all, of the Term Advances advanced by Bank under this Agreement, provided Borrower (i) delivers written notice to Bank of its election to prepay such Term Advances at least five (5) days prior to such prepayment, and (ii) pays on the date of such prepayment (A) all outstanding principal plus accrued and unpaid interest, (B) the Final Payment, (C) the Term Loan Termination Fee, if applicable, and (D) all other sums, if any, that shall have become due and payable, including interest at the Default Rate with respect to any past due amounts thereon.

2.3 Section 2.2 (Payment of Interest on the Credit Extensions). Section 2.2(a) of the Loan Agreement is amended in its entirety and replaced with the following:

(a) Interest Rate. Subject to Section 2.2(b), the principal amount of each Term Advance outstanding under the Term Loan shall accrue interest at a fixed per annum rate equal to the greater of (i) three and three quarters of one percent (3.75%) above the Prime Rate or (ii) seven percent (7.0%), which rate shall be fixed for each Term Advance as of the Funding Date of such Term Advance, and which interest shall be payable in arrears.

2.4 Section 4.3 (Delivery of Stock Certificates). Section 4.3 of the Loan Agreement is amended in its entirety to read as follows:

Borrower agrees to deliver to Bank stock certificates, and accompanying assignments separate from certificate, to effectuate the pledge to Bank of (a) not less than 65% of the total outstanding voting shares of Fate Canada, (b) 100% of the voting shares of Destin owned by Borrower at all times, but in no event greater than 65% of the total outstanding voting shares of Destin, and (c) not less than 65% of the total outstanding voting shares of Fate UK.

2.5 Section 13 (Definitions). The following terms and their respective definitions set forth in **Section 13.1** are either added or amended in their entirety and replaced with the following:

"**Fate UK**" is Fate Therapeutics Ltd., a private limited company formed under the laws of England and Wales, and a Subsidiary of Borrower.

"**Loan Documents**" are, collectively, this Agreement, the Warrant, the Second Warrant, the Perfection Certificate, any subordination agreements, any note, or notes or guaranties executed by Borrower or any Guarantor, and any other present or future agreement between Borrower any Guarantor and/or for the benefit of Bank in connection with this Agreement, all as amended, restated, or otherwise modified.

"**Obligations**" are Borrower's obligation to pay when due any debts, principal, interest, Bank Expenses and other amounts Borrower owes Bank now or later, whether under this Agreement, the Loan Documents, or otherwise, including, without limitation, all obligations relating to letters of credit (including reimbursement obligations for drawn and undrawn letters of credit), the Term Loan Termination Fee, the Final Payment, cash management services, and foreign exchange contracts, if any, and including interest accruing after Insolvency Proceedings begin and debts, liabilities, or obligations of Borrower assigned to Bank, and the performance of Borrower's duties under the Loan Documents.

"**Prime Rate**" is the U.S. Prime Rate published from time to time in the Western Edition of The Wall Street Journal, even if it is not Bank's lowest rate.

"**Second Amendment Date**" is August 25, 2011.

"**Second Warrant**" is that certain Warrant to Purchase Stock dated as of the Second Amendment Date executed by Borrower in favor of Bank.

"**Term Loan Amount**" is an amount up to Four Million Dollars ($4,000,000).

"**Term Loan Maturity Date**" is (a) August 25, 2014 in the case of the Tranche A Term Advance and (b) the date thirty-six (36) months after the date such Term Advance is extended by Bank, in the case of the Tranche B Term Advance.

2.6 The Perfection Certificate is hereby replaced with the Perfection Certificate attached hereto.

3. Limitation of Amendments.

3.1 The amendments set forth in **Section 2**, above, are effective for the purposes set forth herein and shall be limited precisely as written and shall not be deemed to (a) be a consent to any amendment, waiver or modification of any other term or condition of any Loan Document, or (b) otherwise prejudice any right or remedy which Bank may now have or may have in the future under or in connection with any Loan Document.

3.2 This Amendment shall be construed in connection with and as part of the Loan Documents and all terms, conditions, representations, warranties, covenants and agreements set forth in the Loan Documents, except as herein amended, are hereby ratified and confirmed and shall remain in full force and effect.

4. Representations and Warranties. To induce Bank to enter into this Amendment, Borrower hereby represents and warrants to Bank as follows:

4.1 Immediately after giving effect to this Amendment (a) after giving effect to the updated Perfection Certificate attached hereto, the representations and warranties contained in the Loan Documents are true, accurate and complete in all material respects as of the date hereof (except to the extent such representations and warranties relate to an earlier date, in which case they are true and correct as of such date), and (b) no Event of Default has occurred and is continuing;

4.2 Borrower has the power and authority to execute and deliver this Amendment and to perform its obligations under the Loan Agreement, as amended by this Amendment;

4.3 The organizational documents of Borrower delivered to Bank on the Second Amendment Date remain true, accurate and complete and have not been amended, supplemented or restated and are and continue to be in full force and effect;

4.4 The execution and delivery by Borrower of this Amendment and the performance by Borrower of its obligations under the Loan Agreement, as amended by this Amendment, have been duly authorized;

4.5 The execution and delivery by Borrower of this Amendment and the performance by Borrower of its obligations under the Loan Agreement, as amended by this Amendment, do not and will not contravene (a) any law or regulation binding on or affecting Borrower, (b) any contractual restriction with a Person binding on Borrower, (c) any order, judgment or decree of any court or other governmental or public body or authority, or subdivision thereof, binding on Borrower, or (d) the organizational documents of Borrower;

4.6 The execution and delivery by Borrower of this Amendment and the performance by Borrower of its obligations under the Loan Agreement, as amended by this Amendment, do not require any order, consent, approval, license, authorization or validation of, or filing, recording or registration with, or exemption by any governmental or public body or authority, or subdivision thereof, binding on either Borrower, except as already has been obtained or made; and

4.7 This Amendment has been duly executed and delivered by Borrower and is the binding obligation of Borrower, enforceable against Borrower in accordance with its terms, except as such enforceability may be limited by bankruptcy, insolvency, reorganization, liquidation, moratorium or other similar laws of general application and equitable principles relating to or affecting creditors' rights.

5. Counterparts. This Amendment may be executed in any number of counterparts and all of such counterparts taken together shall be deemed to constitute one and the same instrument.

6. Effectiveness. This Amendment shall be deemed effective upon the (a) due execution and delivery to Bank of this Amendment by each party hereto; (b) the due execution and delivery to Bank of the Second Warrant; (c) the due execution and delivery to Bank of updated Borrowing Resolutions; (d) Borrower's delivery of possession of the original stock certificates held by Borrower in Fate UK and assignments separate from certificate executed in blank; and (e) Borrower's payment of any Bank Expenses incurred through the Second Amendment Date.

[Signature page follows.]

IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be duly executed and delivered as of the date first written above.

BANK

SILICON VALLEY BANK

By: /s/ R. Michael White
Name: R. Michael White
Title: SRM

BORROWER

FATE THERAPEUTICS, INC.

By: /s/ Scott Wolchko
Name: Scott Wolchko
Title: CFO

CORPORATE BORROWING CERTIFICATE

BORROWER: **Fate Therapeutics, Inc.** **DATE:** **August 25, 2011**
BANK: **Silicon Valley Bank**

I hereby certify as follows, as of the date set forth above:

1. I am the Secretary, Assistant Secretary or other officer of the Borrower. My title is as set forth below.

2. Borrower's exact legal name is set forth above. Borrower is a corporation existing under the laws of the State of Delaware.

3. Attached hereto are true, correct and complete copies of Borrower's Certificate of Incorporation (including amendments), as filed with the Secretary of State of the state in which Borrower is incorporated as set forth in paragraph 1 above. Such Certificate of Incorporation have not been amended, annulled, rescinded, revoked or supplemented, and remain in full force and effect as of the date hereof.

4. The following resolutions were duly and validly adopted by Borrower's Board of Directors at a duly held meeting of such directors (or pursuant to a unanimous written consent or other authorized corporate action). Such resolutions are in full force and effect as of the date hereof and have not been in any way modified, repealed, rescinded, amended or revoked, and Bank may rely on them until Bank receives written notice of revocation from Borrower.

RESOLVED, that **any one** of the following officers or employees of Borrower, whose names, titles and signatures are below, may act on behalf of Borrower:

Name	Title	Signature	Authorized to Add or Remove Signatories
Scott Wolchko	CFO, Treasurer & Secretary	/s/ Scott Wolchko	☒
			☐
			☐
			☐

RESOLVED FURTHER, that **any one** of the persons designated above with a checked box beside his or her name may, from time to time, add or remove any individuals to and from the above list of persons authorized to act on behalf of Borrower.

RESOLVED FURTHER, that such individuals may, on behalf of Borrower:

Borrow Money. Borrow money from Silicon Valley Bank ("Bank").
Execute Loan Documents. Execute any loan documents Bank requires.
Grant Security. Grant Bank a security interest in any of Borrower's assets.
Negotiate Items. Negotiate or discount all drafts, trade acceptances, promissory notes, or other indebtedness in which Borrower has an interest and receive cash or otherwise use the proceeds.
Issue Warrants. Issue warrants for Borrower's capital stock.
Further Acts. Designate other individuals to request advances, pay fees and costs and execute other documents or agreements (including documents or agreement that waive Borrowers right to a jury trial) they believe to be necessary to effectuate such resolutions.

RESOLVED FURTHER, that all acts authorized by the above resolutions and any prior acts relating thereto are ratified.

5. The persons listed above are Borrower's officers or employees with their titles and signatures shown next to their names.

By: /s/ Scott Wolchko
Name: Scott Wolchko
Title: CFO

**** If the Secretary, Assistant Secretary or other certifying officer executing above is designated by the resolutions set forth in paragraph 4 as one of the authorized signing officers, this Certificate must also be signed by a second authorized officer or director of Borrower.*

I, the [print title] of Borrower, hereby certify as to paragraphs 1 through 5 above, as of the date set forth above.

By: /s/ John Mendlein
Name: John Mendlein

Title: Ex Chairman

Exhibit 10.19

FATE THERAPEUTICS, INC.

AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT

This Amended and Restated Investor Rights Agreement (the "Agreement") is made as of June 18, 2013, among Fate Therapeutics, Inc., a Delaware corporation (the "Company"), the stockholders listed on Exhibit A hereto (each, an "Investor" and collectively, the "Investors") and the stockholders and founders of the Company listed on Exhibit B hereto (each, a "Founder" and collectively, the "Founders").

RECITALS

A. The Investors are holders of the Company's Series A Preferred Stock (the "Series A Preferred Stock"), Series B Preferred Stock (the "Series B Preferred Stock"), Series B-1 Preferred Stock (the "Series B-1 Preferred Stock") and Series C Preferred Stock (the "Series C Preferred Stock," and collectively with the Series A Preferred Stock, Series B Preferred Stock and Series B-1 Preferred Stock, the "Preferred Stock").

E. The Company, the Investors and the Founders are parties to an Amended and Restated Investor Rights Agreement dated May 4, 2012, by and among the Company, the Investors and the Founders, as amended by an Omnibus Amendment to Series C Preferred Stock Financing Agreements dated October 26, 2012 by and among the Company and certain of the Company's stockholders (together, the "Prior Agreement").

F. The parties to such Prior Agreement desire to amend and restate the Prior Agreement and to accept the rights and covenants hereof in lieu of their rights and covenants under the Prior Agreement.

AGREEMENT

The parties agree as follows:

1. Restrictions on Transferability; Registration Rights.

1.1 Certain Definitions. As used in this Agreement, the following terms have the following respective meanings:

"Affiliated Party" means, with respect to any Holder, any person or entity which, directly or indirectly, controls, is controlled by or is under common control with such Investor.

"Board" means the board of directors of the Company.

"Commission" means the Securities and Exchange Commission or any other federal agency at the time administering the Securities Act.

"Conversion Stock" means shares of Company Common Stock issued or issuable pursuant to the conversion of Preferred Stock; *provided*, that Conversion Stock shall in

no event include any shares of Company Common Stock issued upon any Special Mandatory Conversion (as defined in the Company's Amended and Restated Certificate of Incorporation (the "Restated Certificate")).

"Exchange Act" means the Securities Exchange Act of 1934, as amended, or any similar successor federal statute, and the rules and regulations thereunder, all as the same shall be in effect from time to time.

"Form S-3 Initiating Holders" means any Holder or Holders who in the aggregate hold not less than twenty-five percent (25%) of the Registrable Securities then outstanding and who propose to register securities, the aggregate offering price of which, net of underwriting discounts and commissions, exceeds $1,000,000.

"Founders' Stock" means the shares of Common Stock issued to the Founders.

"Holder" means any person owning or having the right to acquire Registrable Securities or any assignee thereof in accordance with Section 1.11 hereof.

"Initiating Holders" means any Holder or Holders who in the aggregate hold not less than forty percent (40%) of the Registrable Securities then outstanding and who propose to register securities, the aggregate offering price of which, net of underwriting discounts and commissions, is at least $5,000,000.

"IPO" means the first public offering of the Common Stock of the Company to the general public that is effected pursuant to a registration statement filed with, and declared effective by, the Commission under the Securities Act.

"New Securities" means any shares of capital stock of the Company, including Common Stock and Preferred Stock, whether authorized or not, and rights, options, or warrants to purchase said shares of capital stock, and securities of any type whatsoever that are, or may become, convertible into capital stock; *provided, however*, that the term "New Securities" does not include (i) the issuance of Common Stock upon the conversion of any bonds, debentures, notes or other evidence of indebtedness, and any warrants, shares or any other securities convertible into, exercisable for, or exchangeable for Common Stock, including Preferred Stock (collectively, "Convertible Securities"), outstanding as of the date hereof; (ii) the issuance of shares of Common Stock (or options to purchase shares of Common Stock) to employees, directors or consultants of the Company under equity incentive plans, programs or agreements approved by the Board (not including the reissuance of shares repurchased by the Company from employees or consultants of the Company), which approval shall include at least three of the Preferred Directors; (iii) the issuance of shares of Common Stock or Convertible Securities to lenders, financial institutions, equipment lessors, or real estate lessors to the Company in connection with a bona fide borrowing or leasing transaction approved by the Board, which approval shall include at least three of the Preferred Directors; (iv) the issuance of Common Stock or Convertible Securities pursuant to (A) the acquisition of another business by the Company by merger, purchase of all or substantially all of the assets or shares, or other reorganization whereby the Company or its shareholders own not less than a majority of the

voting power of the surviving or successor business or (B) the acquisition of technology or other intellectual property by outright purchase or exclusive license, in each case, provided that such transaction is approved by the Board, which approval shall include at least three of the Preferred Directors; (v) the issuance of Common Stock in connection with an IPO; (vi) the issuance of Common Stock or Convertible Securities in connection with strategic partnership transactions approved by the Board, which approval shall include at least three of the Preferred Directors; (vii) the issuance of shares pursuant to stock splits, stock dividends or similar transactions; (viii) securities issued pursuant to that certain Series C Preferred Stock Purchase Agreement dated as of May 4, 2012, by and among the Company and the parties thereto (the "Series C Purchase Agreement"); (ix) any right, option, or warrant to acquire any security convertible into the securities excluded from the definition of New Securities pursuant to clauses (i) through (viii) above; or (x) the issuance of shares of Common Stock or Convertible Securities to holders of exchangeable shares in the capital of Fate Therapeutics (Canada) Inc. (the "Fate Canada Exchangeable Shares") in connection with the redemption or exchange of the Fate Canada Exchangeable Shares pursuant to the Articles of Incorporation of Fate Therapeutics (Canada) Inc. ("Fate Canada") and/or the Exchange and Support Agreement, dated April 13, 2010, by and among the Company, Fate Canada and the holders of Fate Canada Exchangeable Shares (as the same may be amended, restated or modified from time to time).

"Other Stockholders" means persons other than Holders who, by virtue of agreements with the Company, are entitled to include their securities in certain registrations hereunder.

"Preferred Directors" shall mean the directors designated pursuant to Sections 2.1 and 2.2 of the Amended and Restated Voting Agreement entered into by and among the Company and the stockholders listed as parties thereto of even date herewith (the "Voting Agreement").

"Pro Rata Portion" means the ratio that (x) the sum of the number of shares of the Company's Common Stock held by an Investor immediately prior to the issuance of New Securities, assuming full exercise and/or conversion of the Shares and all Company securities exercisable and/or convertible into the Company's Common Stock then held by such Investor, bears to (y) the sum of the total number of shares of the Company's Common Stock then outstanding, assuming full exercise and/or conversion of all Company securities exercisable and/or convertible into the Company's Common Stock then outstanding.

The terms "register", "registered" and "registration" refer to a registration effected by preparing and filing a registration statement in compliance with the Securities Act, and the declaration or ordering of the effectiveness of such registration statement.

"Registration Expenses" shall mean all expenses incurred by the Company in complying with Sections 1.3, 1.4, and 1.5 hereof, including, without limitation, all registration, qualification, listing and filing fees, printing expenses, escrow fees, fees and disbursements of counsel for the Company, fees and disbursements of one counsel for all of the Holders registering securities in any given registration, blue sky fees and expenses, and the expense of any special audits incident to or required by any such registration (but excluding the compensation of regular employees of the Company which shall be paid in any event by the Company), but shall not include Selling Expenses.

"Registrable Securities" shall mean (i) Conversion Stock, other than shares for which registration rights have terminated pursuant to Section 1.15 hereof; (ii) any Common Stock of the Company issued as a dividend or other distribution with respect to or in exchange for or in replacement of the shares referenced in clause (i) above; (iii) solely for the purposes of Sections 1.5 – 1.10, 1.13 – 1.15 and 4, the shares of Founders' Stock and (iv) solely for the purposes of Sections 1.3 – 1.10, 1.13 – 1.15 and 4, shares of the Company's Common Stock issued and issuable upon conversion of the shares of convertible preferred stock issued and issuable upon exercise or conversion of that certain Warrant to Purchase Stock issued to Silicon Valley Bank on January 5, 2009 and that certain Warrant to Purchase Stock issued to Silicon Valley Bank on August 25, 2011 (together, the "Warrants"), and the shares of Common Stock issued and issuable upon exercise or conversion of the Warrants at all times when the applicable Class (as defined in each of the Warrants) is Common Stock, except that the holder of the Warrants shall not be entitled to be an Initiating Holder; *provided, however*, that shares of Common Stock or other securities shall only be treated as Registrable Securities if and so long as they have not been (A) sold to or through a broker or dealer or underwriter in a public distribution or a public securities transaction, (B) sold in a transaction exempt from the registration and prospectus delivery requirements of the Securities Act under Section 4(1) thereof so that all transfer restrictions and restrictive legends with respect thereto are removed upon the consummation of such sale, (C) transferred in a transaction pursuant to which the registration rights are not also assigned in accordance with Section 1.11 hereof, or (D) with respect to each Holder, all such shares held by such Holder become eligible for sale under Rule 144 of the Securities Act (or any similar or successor rule) during any one ninety (90) day period.

"Restricted Securities" shall mean the securities of the Company required to bear the legend set forth in Section 1.2 hereof.

"Rule 144" means Rule 144 as promulgated by the Commission under the Securities Act, as such Rule may be amended from time to time, or any similar successor rule that may be promulgated by the Commission.

"Rule 145" means Rule 145 as promulgated by the Commission under the Securities Act, as such Rule may be amended from time to time, or any similar successor rule that may be promulgated by the Commission.

"Securities Act" shall mean the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder or any similar federal statute and the rules and regulations of the Commission thereunder, all as the same shall be in effect at the time.

"Selling Expenses" shall mean all underwriting discounts, selling commissions and stock transfer taxes applicable to the securities registered by the Holders and all fees and disbursements of counsel for any Holder, other than the fees and disbursements of one counsel for all of the Holders registering securities in any given registration as provided in the definition of "Registration Expenses" above.

"Shares" means the Preferred Stock.

1.2 Restrictions.

(a) Each Holder agrees not to make any disposition of all or any portion of the Registrable Securities unless and until the transferee has agreed in writing for the benefit of the Company to be bound by this Section 1.2 and Section 1.14, provided and to the extent such Sections are then applicable, and (i) there is then in effect a registration statement under the Securities Act covering such proposed disposition and such disposition is made in accordance with such registration statement, or (ii) such Holder shall have notified the Company of the proposed disposition and shall have furnished the Company with a detailed statement of the circumstances surrounding the proposed disposition, and, if reasonably requested by the Company, such Holder shall have furnished the Company with an opinion of counsel, reasonably satisfactory to the Company, that such disposition will not require registration under the Securities Act. Notwithstanding the foregoing, no such registration statement, detailed statement of circumstances, or opinion of counsel shall be necessary for a transfer by a Holder which is (A) a partnership to its partners or retired partners in accordance with partnership interests, (B) a limited liability company to its members or former members in accordance with their interest in the limited liability company, (C) a corporation to its shareholders in accordance with their interests in the corporation, (D) to the Holder's family member or trust for the benefit of an individual Holder, or (E) to an Affiliated Party of the Holder, or (F) any transaction contemplated by Section 3(a)(iv) of the Common Stock Purchase Agreements between the Company and Philip Beachy, Sheng Ding, Randall Moon, David Scadden and Leonard Zon, respectively, each dated as of September 17, 2007, provided in all cases enumerated in clauses (A) – (E) that the transferee is subject to the terms of this Section 1.2 and Section 1.14 as if such transferee were an original Holder hereunder. Each Holder consents to the Company making a notation on its records and giving instructions to any transfer agent of the Restricted Securities in order to implement the restrictions on transfer established in this Section 1.2.

(b) Each certificate representing Registrable Securities shall be stamped or otherwise imprinted with legends substantially in the following forms (in addition to any legend required under applicable state securities laws or the Company's charter documents):

"THE SHARES REPRESENTED BY THIS CERTIFICATE HAVE BEEN ACQUIRED FOR INVESTMENT AND HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, AND MAY NOT BE SOLD, TRANSFERRED, ASSIGNED, PLEDGED, OR HYPOTHECATED UNLESS AND UNTIL REGISTERED UNDER SUCH ACT, OR UNLESS THE COMPANY HAS RECEIVED AN OPINION OF COUNSEL OR OTHER EVIDENCE, SATISFACTORY TO THE COMPANY AND ITS COUNSEL, THAT SUCH REGISTRATION IS NOT REQUIRED."

"THE SHARES REPRESENTED BY THIS CERTIFICATE MAY BE TRANSFERRED ONLY IN ACCORDANCE WITH THE TERMS OF AN AGREEMENT BETWEEN THE COMPANY AND THE SHAREHOLDER, A COPY OF WHICH IS ON FILE WITH THE SECRETARY OF THE COMPANY."

(c) The Company shall promptly reissue unlegended certificates at the

request of any Holder thereof if the Holder shall have obtained an opinion of counsel reasonably acceptable to the Company to the effect that the securities proposed to be disposed of may lawfully be disposed of without registration, qualification, or legend.

1.3 Requested Registration.

(a) Request for Registration. If the Company shall receive from Initiating Holders a written request that the Company effect any registration, qualification, or compliance, the Company will:

(i) promptly deliver written notice of the proposed registration, qualification, or compliance to all other Holders; and

(ii) as soon as practicable, use its best efforts to effect such registration, qualification, or compliance (including, without limitation, the execution of an undertaking to file post-effective amendments, appropriate qualification under applicable blue sky or other state securities laws, and appropriate compliance with applicable regulations issued under the Securities Act and any other governmental requirements or regulations) as may be so requested and as would permit or facilitate the sale and distribution of all or such portion of such Registrable Securities as are specified in such request, together with all or such portion of the Registrable Securities of any Holder or Holders joining in such request as are specified in a written request delivered to the Company within twenty (20) days after delivery of such written notice from the Company; *provided, however*, that the Company shall not be obligated to take any action to effect any such registration, qualification, or compliance pursuant to this Section 1.3:

(A) Prior to the earlier of: (i) three (3) years following the date of this Agreement, and (ii) six months following the effective date of the IPO;

(B) After the Company has effected two (2) such registrations pursuant to this Section 1.3, such registrations have been declared or ordered effective, and the securities offered pursuant to such registrations have been sold;

(C) During the period starting with the date sixty (60) days prior to the Company's estimated date of filing of, and ending on a date one hundred and eighty (180) days after the effective date of, a registration initiated by the Company; provided that the Company is actively employing in good faith all reasonable efforts to cause such registration statement to become effective and that the Company's estimate of the date of filing such registration statement is made in good faith;

(D) In any particular jurisdiction in which the Company would be required to execute a general consent to service of process in effecting such registration, qualification or compliance unless the Company is already subject to service in such jurisdiction and except as may be required by the Securities Act;

(E) If in the good faith judgment of the Board, such registration would be seriously detrimental to the Company and the Board concludes, as a result, that it is essential to defer the filing of such registration statement at such time, and the Company

thereafter delivers to the Initiating Holders a certificate, signed by the President or Chief Executive Officer of the Company, stating that in the good faith judgment of the Board it would be detrimental to the Company or its stockholders for a registration statement to be filed in the near future, then the Company's obligation to use its best efforts to register, qualify, or comply under this Section 1.3 shall be deferred for a period not to exceed ninety (90) days from the delivery of the written request from the Initiating Holders; *provided*, *however*, that the Company may not utilize this right more than twice in any twelve (12) month period;

(F) If the Initiating Holders do not request that such offering be firmly underwritten by underwriters selected by the Initiating Holders (subject to the consent of the Company, which consent will not be unreasonably withheld); or

(G) If the Initiating Holders propose to dispose of shares of Registrable Securities which may be immediately registered on Form S-3 pursuant to a request made under Section 1.4 hereof.

Subject to the foregoing clauses (A) through (G), the Company shall file a registration statement covering the Registrable Securities so requested to be registered as soon as practicable after receipt of the request or requests of the Initiating Holders. The registration statement filed pursuant to the request of the Initiating Holders may, subject to the provisions of Sections 1.3(c) hereof, include other securities of the Company with respect to which registration rights have been granted, and may include securities being sold for the account of the Company.

(b) Underwriting. The right of any Holder to registration pursuant to this Section 1.3 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. A Holder may elect to include in such underwriting all or a part of the Registrable Securities held by such Holder.

(c) Procedures. If the Company shall request inclusion in any registration pursuant to this Section 1.3 of securities being sold for its own account, or if other persons shall request inclusion in any registration pursuant to this Section 1.3, the Initiating Holders shall, on behalf of all Holders, offer to include such securities in the underwriting and may condition such offer on their acceptance of the applicable provisions of this Section 1 (including without limitation Section 1.14). The Company shall (together with all Holders or other persons proposing to distribute their securities through such underwriting) enter into and perform its obligations under an underwriting agreement in customary form with the managing underwriter selected for such underwriting by a majority in interest of the Initiating Holders (which managing underwriter shall be reasonably acceptable to the Company). Notwithstanding any other provision of this Agreement, if the managing underwriter advises the Initiating Holders in writing that marketing factors require a limitation of the number of shares to be underwritten, the number of shares to be included in the underwriting or registration shall be allocated among all participating Holders thereof, including the Initiating Holders, in proportion (as nearly as practicable) to the amount of Registrable Securities of the Company owned by each participating Holder. In no event shall any Registrable Securities be excluded from such underwriting unless all other securities are first excluded from such offering. If any person who has requested

inclusion in such registration as provided above disapproves of the terms of the underwriting, such person shall be excluded therefrom by written notice delivered by the Company or the managing underwriter. Any Registrable Securities and/or other securities so excluded or withdrawn shall also be withdrawn from registration.

1.4 Registration on Form S-3.

(a) Qualification on Form S-3. After the IPO, the Company shall use its best efforts to qualify for registration on Form S-3 or any comparable or successor form. To that end the Company shall register (whether or not required by law to do so) its Common Stock under the Exchange Act in accordance with the provisions of the Exchange Act following the effective date of the first registration of any securities of the Company on Form S-1 or any comparable or successor form or forms.

(b) Request for Registration on Form S-3. After the Company has qualified for the use of Form S-3, if the Company shall receive from Form S-3 Initiating Holders a written request that the Company effect a registration on Form S-3 the Company will:

(i) promptly deliver written notice of the proposed registration to all other Holders; and

(ii) as soon as practicable, use its best efforts to effect such registration, qualification, or compliance (including, without limitation, the execution of an undertaking to file post-effective amendments, appropriate qualification under applicable blue sky or other state securities laws, and appropriate compliance with applicable regulations issued under the Securities Act and any other governmental requirements or regulations) as may be so requested and as would permit or facilitate the sale and distribution of all or such portion of such Registrable Securities as are specified in such request, together with all or such portion of the Registrable Securities of any Holder or Holders joining in such request as are specified in a written request delivered to the Company within twenty (20) days after delivery of such written notice from the Company; *provided*, *however*, that the Company shall not be obligated to take any action to effect any such registration, qualification, or compliance pursuant to this Section 1.4:

(A) After the fifth anniversary of the IPO;

(B) After the Company has effected two (2) such registrations pursuant to this Section 1.4 during any twelve (12) month period, such registrations have been declared or ordered effective and the securities offered pursuant to such registrations have been sold;

(C) During the period starting with the date sixty (60) days prior to the Company's estimated date of filing of, and ending on a date one hundred and eighty (180) days after the effective date of, a registration initiated by the Company; *provided* that the Company is actively employing in good faith all reasonable efforts to cause such registration statement to become effective and that the Company's estimate of the date of filing such registration statement is made in good faith;

(D) In any particular jurisdiction in which the Company would be required to execute a general consent to service of process in effecting such registration, qualification, or compliance unless the Company is already subject to service in such jurisdiction and except as may be required by the Securities Act;

(E) If in the good faith judgment of the Board, such registration would be seriously detrimental to the Company and the Board concludes, as a result, that it is essential to defer the filing of such registration statement at such time, and the Company thereafter delivers to the Form S-3 Initiating Holders a certificate, signed by the President or Chief Executive Officer of the Company, stating that in the good faith judgment of the Board it would be detrimental to the Company or its stockholders for a registration statement to be filed in the near future, then the Company's obligation to use its best efforts to register, qualify, or comply under this Section 1.4 shall be deferred for a period not to exceed ninety (90) days from the date of delivery of the written request from the Form S-3 Initiating Holders; *provided*, *however*, that the Company may not utilize this right more than twice in any twelve (12) month period.

(c) Underwriting; Procedure. If a registration requested under this Section 1.4 is for an underwritten offering, the provisions of Sections 1.3(b) and 1.3(c) shall apply to such registration. Registrations effected pursuant to this Section 1.4 shall not be counted as demands for registration(s) effected pursuant to Sections 1.3 or 1.5, respectively.

1.5 Company Registration.

(a) Notice of Registration. If the Company shall determine to register any of its securities, either for its own account or the account of a security holder or holders other than (A) a registration pursuant to Sections 1.3 or 1.4 hereof, (B) a registration relating solely to employee benefit plans, (C) a registration relating solely to a Rule 145 transaction, or (D) a registration on any registration form that does not permit secondary sales, the Company will:

(i) promptly deliver to each Holder written notice thereof; and

(ii) use its best efforts to include in such registration (and any related qualification under blue sky laws or other compliance), except as set forth in Section 1.5(b) below, and in any underwriting involved therein, all the Registrable Securities specified in a written request or requests made by any Holder and delivered to the Company within ten (10) days after the written notice is delivered by the Company. Such written request may include all or a portion of a Holder's Registrable Securities.

(b) Underwriting; Procedures. If the registration of which the Company gives notice is for a registered public offering involving an underwriting, the Company shall so advise the Holders as a part of the written notice given pursuant to Section 1.5(a)(i). In such event, the right of any Holder to registration pursuant to this Section 1.5 shall be conditioned upon such Holder's participation in such underwriting and the inclusion of 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 and the other holders distributing their securities through such underwriting) enter into and perform their

obligations under an underwriting agreement in customary form with the managing underwriter selected for such underwriting by the Company. Notwithstanding any other provision of this Section 1.5, if the managing underwriter determines that marketing factors require a limitation of the number of shares to be underwritten, the managing underwriter may exclude all Registrable Securities from, or limit the number of Registrable Securities to be included in, the registration and underwriting; provided, however, that unless the registration is with respect to the Company's IPO, the number of shares of Registrable Securities to be included in such underwriting shall not be reduced below twenty five percent (25%) unless all other securities, including those shares of Common Stock not issued upon conversion of Preferred Stock held by any Founder, employee, officer, director or consultant, are first entirely excluded from the underwriting. The Company shall so advise all holders of securities requesting registration, and the number of shares of securities that are entitled to be included in the registration and underwriting shall be allocated as set forth in Section 1.13. If any person who has requested inclusion in such registration as provided above disapproves of the terms of the underwriting, such person shall be excluded therefrom by written notice delivered by the Company or the managing underwriter. Any Registrable Securities and/or other securities so excluded or withdrawn shall also be withdrawn from registration.

(c) Right to Terminate Registration. The Company shall have the right to terminate or withdraw any registration initiated by it under this Section 1.5 prior to the effectiveness of such registration, whether or not any Holder has elected to include securities in such registration.

1.6 Registration Procedures. In the case of each registration, qualification, or compliance effected by the Company pursuant to this Section 1, the Company will keep each Holder advised in writing as to the initiation of each registration, qualification, and compliance and as to the completion thereof and, at its expense, the Company will use its best efforts to:

(a) Prepare and file with the Commission a registration statement with respect to such securities and use its best efforts to cause such registration statement to become and remain effective for at least ninety (90) days or until the distribution described in the registration statement has been completed, whichever occurs first; *provided*, *however*, that (i) such 90-day period shall be extended for a period of time equal to the period the Holder refrains from selling any securities included in such registration at the request of an underwriter of common stock or other securities of the Company, and (ii) in the case of any registration of Registrable Securities on Form S-3 which are intended to be offered on a continuous or delayed basis, such 90-day period shall be extended, if necessary, up to one hundred eighty (180) days to keep the registration statement effective until all such Registrable Securities are sold, however in no event longer than one year from the effective date of the registration statement and provided that if Rule 415, or any successor rule under the Securities Act, permits an offering on a continuous or delayed basis, and provided further that if applicable rules under the Securities Act governing the obligation to file a post-effective amendment permit, in lieu of filing a post-effective amendment which (A) includes any prospectus required by Section 10(a)(3) of the Securities Act or (B) reflects facts or events representing a material or fundamental change in the information set forth in the registration statement, the incorporation by reference of information required to be included in (A) and (B) above shall be contained in periodic reports filed pursuant to Section 13 or 15(d) of the Exchange Act in the registration statement;

(b) Furnish to the Holders participating in such registration and to the underwriters of the securities being registered such reasonable number of copies of the registration statement, preliminary prospectus, final prospectus, and such other documents as they may reasonably request in order to facilitate the public offering of such securities;

(c) Prepare and file with the Commission such amendments and supplements to such registration statement and the prospectus used in connection with such registration statements as may be necessary to comply with the provisions of the Securities Act with respect to the disposition of all securities covered by such registration statement;

(d) Notify each seller of Registrable Securities covered by such registration statement at any time when a prospectus relating thereto is required to be delivered under the Securities Act of the happening of any event as a result of which the prospectus included in such registration statement, as then in effect, includes an untrue statement of a material fact or omits to state a material fact required to be stated therein or necessary to make the statements therein not misleading or incomplete in the light of the circumstances then existing, and at the request of any such seller, prepare and furnish to such seller a reasonable number of copies of a supplement to or an amendment of such prospectus as may be necessary so that, as thereafter delivered to the purchaser of such shares, such prospectus shall not include an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading or incomplete in the light of the circumstances then existing;

(e) Use its best efforts to register and qualify the securities covered by such registration statement under such other securities or blue sky laws of such jurisdictions as shall be reasonably requested by the Holders, provided that the Company shall not be required in connection therewith or as a condition thereto to qualify to do business or to file a general consent to service of process in any such states or jurisdictions;

(f) Cause all such Registrable Securities to be listed on each securities exchange on which similar securities issued by the Company are then listed;

(g) Provide a transfer agent and registrar for all Registrable Securities and a CUSIP number for all such Registrable Securities, in each case not later than the effective date of such registration;

(h) Use its best efforts to furnish, at the request of any Holder requesting registration of Registrable Securities pursuant to this Section 1, on the date that such Registrable Securities are delivered to the underwriters for sale in connection with a registration pursuant to this Section 1, if such securities are being sold through underwriters, or, if such securities are not being sold through underwriters, on the date that the registration statement with respect to such securities becomes effective, (i) an opinion, dated such date, of the counsel representing the Company for the purposes of such registration, in form and substance as is customarily given to underwriters in an underwritten public offering, addressed to the underwriters, if any, and to the Holders requesting registration of Registrable Securities and (ii) a letter, dated such date, from the independent certified public accountants of the Company, in form and substance as is customarily given by independent certified public accountants to

underwriters in an underwritten public offering, addressed to the underwriters, if any, and to the Holders requesting registration of Registrable Securities (to the extent the then-applicable standards of professional conduct permit said letter to be addressed to the Holders).

1.7 Information by Holder. The Holder or Holders of Registrable Securities included in any registration shall furnish to the Company such information regarding such Holder or Holders, the Registrable Securities held by them, and the distribution proposed by such Holder or Holders as the Company may request in writing and as shall be required in connection with any registration, qualification, or compliance referred to in this Section 1, and the refusal to furnish such information by any Holder or Holder shall relieve the Company of its obligations in this Section 1 with respect to such Holder or Holders. Furthermore, the Company shall have no obligation with respect to any registration requested pursuant to Section 1.3 or Section 1.4 of this Agreement if, as a result of the application of the preceding sentence, the number of shares or the anticipated aggregate offering price of the Registrable Securities to be included in the registration does not equal or exceed the number of shares or the anticipated aggregate offering price required to originally trigger the Company's obligation to initiate such registration as specified in the definition of "Initiating Holders" or "Form S-3 Initiating Holders," whichever is applicable.

1.8 Indemnification.

(a) To the extent permitted by law, the Company will indemnify each Holder, each of its officers, directors, partners, legal counsel, and accountants, and each person controlling such Holder within the meaning of Section 15 of the Securities Act, with respect to which registration, qualification, or compliance has been effected pursuant to this Section 1, and each underwriter, if any, and each person who controls any underwriter within the meaning of Section 15 of the Securities Act, against all expenses, claims, losses, damages, or liabilities (or actions, proceedings, or settlements in respect thereof) arising out of or based on any untrue statement (or alleged untrue statement) of a material fact contained in any registration statement, prospectus, offering circular, or other document (including any related registration statement, notification, or the like), or any amendment or supplement thereto, incident to any such registration, qualification, or compliance, or based on any omission (or alleged omission) to state therein a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances in which they were made, not misleading, or any violation by the Company of the Securities Act or Exchange Act or any rule or regulation promulgated under the Securities Act or Exchange Act applicable to the Company in connection with any such registration, qualification, or compliance, and the Company will reimburse each such Holder, each of its officers, directors, partners, legal counsel, and accountants, and each person controlling such Holder, each such underwriter and each person who controls any such underwriter, for any legal and any other expenses reasonably incurred in connection with investigating, preparing, defending, or settling any such claim, loss, damage, liability, or action, as such expenses are incurred, provided that the Company will not be liable in any such case to the extent that any such claim, loss, damage, liability, or expense arises out of or is based on any untrue statement or omission or alleged untrue statement or omission, made in reliance upon and in conformity with written information furnished to the Company by such Holder, controlling person, or underwriter and stated to be specifically for use therein. It is agreed that the indemnity agreement contained in this Section 1.8 shall not apply to amounts paid in settlement of any such loss, claim, damage, liability, or action if such settlement is effected without the consent of the Company (which consent shall not be unreasonably withheld).

(b) To the extent permitted by law, each Holder will, if Registrable Securities held by such Holder are included in the securities as to which such registration, qualification, or compliance is being effected, indemnify the Company, each of its directors, officers, partners, legal counsel, and accountants, and each underwriter, if any, of the Company's securities covered by such a registration statement, each person who controls the Company or such underwriter within the meaning of Section 15 of the Securities Act, and each other such Holder and Other Stockholder, each of their officers, directors, and partners, and each person controlling such Holder or Other Stockholder within the meaning of Section 15 of the Securities Act, against all claims, losses, damages, and liabilities (or actions in respect thereof) arising out of or based on any untrue statement (or alleged untrue statement) of a material fact contained in any such registration statement, prospectus, offering circular, or other document, or any omission (or alleged omission) to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, and will reimburse the Company and such Holders, Other Stockholders, directors, officers, partners, legal counsel, and accountants, persons, underwriters, or control persons for any legal or any other expenses reasonably incurred in connection with investigating or defending any such claim, loss, damage, liability, or action, as such expenses are incurred, in each case to the extent, but only to the extent, that such untrue statement (or alleged untrue statement) or omission (or alleged omission) is made in such registration statement, prospectus, offering circular, or other document in reliance upon and in conformity with written information furnished to the Company by such Holder and stated to be specifically for use therein, provided, however, that the obligations of such Holder hereunder shall not apply to amounts paid in settlement of any such claims, losses, damages, or liabilities (or actions in respect thereof) if such settlement is effected without the consent of such Holder (which consent shall not be unreasonably withheld); and provided that that in no event shall any indemnity under this Section 1.8 exceed the gross proceeds received by such Holder in such offering.

(c) Each party entitled to indemnification under this Section 1.8 (the "Indemnified Party") shall give notice to the party required to provide indemnification (the "Indemnifying Party") promptly after such Indemnified Party has actual knowledge of any claim as to which indemnity may be sought, and shall permit the Indemnifying Party to assume the defense of any such claim or any litigation resulting therefrom, provided that counsel for the Indemnifying Party, who shall conduct the defense of such claim or litigation, shall be approved by the Indemnified Party (whose approval shall not unreasonably be withheld), and the Indemnified Party may participate in such defense at such party's expense, and provided further that the failure of any Indemnified Party to give notice as provided herein shall not relieve the Indemnifying Party of its obligations under this Section 1.8 unless the failure to give such notice is materially prejudicial to an Indemnifying Party's ability to defend such action. No Indemnifying Party, in the defense of any such claim or litigation, shall, except with the consent of each Indemnified Party, consent to entry of any judgment or enter into any settlement which does not include as an unconditional term thereof the giving by the claimant or plaintiff to such Indemnified Party of a release from all liability in respect to such claim or litigation. Each Indemnified Party shall furnish such information regarding itself or the claim in question as an Indemnifying Party may reasonably request in writing and as shall be reasonably required in connection with the defense of such claim and litigation resulting therefrom.

(d) If the indemnification provided for in this Section 1.8 is held by a court of competent jurisdiction to be unavailable to an Indemnified Party with respect to any claim, loss, damage, liability, or expense referred to therein, then the Indemnifying Party, in lieu of indemnifying such Indemnified Party hereunder, shall contribute to the amount paid or payable by such Indemnified Party as a result of such claim, loss, damage, liability, or expense in such proportion as is appropriate to reflect the relative fault of the Indemnifying Party on the one hand and the Indemnified party on the other in connection with the statements or omissions that resulted in such claim, loss, damage, liability, or expense, as well as 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 alleged untrue statement of a material fact or the omission to state a material fact related 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. The Company and the Holders agree that it would not be just and equitable if contribution pursuant to this Section 1.8 were based solely upon the number of entities from whom contribution was requested or by any other method of allocation which does not take account of the equitable considerations referred to above. In no event shall any contribution by a Holder under this Section 1.8 exceed the gross proceeds received by such Holder in such offering.

(e) The amount paid or payable by an Indemnified Party as a result of the losses, claims, damages, and liabilities referred to above in this Section 1.8 shall be deemed to include any legal or other expenses reasonably incurred by such Indemnified Party in connection with investigating or defending any such action or claim, subject to the provisions of Section 1.8(c). No person guilty of fraudulent misrepresentation (within the meaning of the Securities Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation.

(f) 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.

(g) The obligations of the Company and Holders under this Section 1.8 shall survive the completion of any offering of Registrable Securities in a registration statement.

1.9 Expenses of Registration. All Registration Expenses shall be borne by the Company; provided, however, that if the Holders bear the Registration Expenses for any registration proceeding begun pursuant to Section 1.3 and subsequently withdrawn by the Holders registering shares therein, such registration proceeding shall not be counted as a requested registration pursuant to Section 1.3. Furthermore, in the event that a withdrawal by the Holders is based upon material adverse information relating to the Company that is different from the information known or available (upon request from the Company or otherwise) to the Holders requesting registration at the time of their request for registration under Section 1.3, such

registration proceeding shall not be counted as a requested registration pursuant to Section 1.3, even though the Holders do not bear the Registration Expenses for such registration. All Selling Expenses relating to securities registered on behalf of the Holders shall be borne by the holders of the registered securities included in such registration pro rata on the basis of the number of shares so registered.

1.10 Rule 144 Reporting. With a view to making available the benefits of certain rules and regulations of the Commission which may at any time permit the sale of the Restricted Securities to the public without registration after such time as a public market exists for the Common Stock of the Company, the Company agrees to use its best efforts to:

(a) Make and keep public information available, as those terms are understood and defined in Rule 144, at all times after the effective date that the Company becomes subject to the reporting requirements of the Securities Act or the Exchange Act;

(b) File with the Commission 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 it has become subject to such reporting requirements);

(c) So long as a Holder owns any Restricted Securities, to furnish to the Holder forthwith upon request a written statement by the Company as to its compliance with the reporting requirements of Rule 144 and of any other reporting requirements of the Securities Act and the Exchange Act (at any time after it has become subject to such reporting requirements), a copy of the most recent annual or quarterly report of the Company, and such other reports and documents of the Company and other information in the possession of or reasonably obtainable by the Company as a Holder may reasonably request in availing itself of any rule or regulation of the Commission allowing a Holder to sell any such securities without registration; and

(d) Take such action, including the voluntary registration of its Common Stock under Section 12 of the Exchange Act, as is necessary to enable the Holders to utilize Form S-3 for the sale of their Registrable Securities, such action to be taken as soon as practicable after the end of the fiscal year in which the first registration statement filed by the Company for the offering of its securities to the general public is declared effective.

1.11 Transfer of Registration Rights. The rights to cause the Company to register securities granted to any party hereto under Section 1 may be assigned by a Holder only to a transferee or assignee who acquires at least One Million (1,000,000) shares of Registrable Securities (as appropriately adjusted for stock splits and the like), provided that the Company is given written notice at the time of or within a reasonable time after said assignment, stating the name and address of the transferee or assignee and identifying the securities with respect to which such registration rights are being assigned, and, provided further, that the assignee of such rights agrees in writing to be bound by the terms and conditions of this Agreement. Notwithstanding the foregoing, no such minimum share assignment requirement shall be necessary for an assignment by a Holder which is (A) a partnership to its partners or retired partners in accordance with partnership interests, (B) a limited liability company to its members or former members in accordance with their interest in the limited liability company, (C) a

corporation to its shareholders in accordance with their interests in the corporation, (D) to the Holder's family member or trust for the benefit of an individual Holder, or (E) to an Affiliated Party.

1.12 Limitations on Subsequent Registration Rights. From and after the date hereof, the Company shall not, without the prior written consent of Holders who in the aggregate hold at least a majority of the then outstanding Registrable Securities, enter into any agreement granting any holder or prospective holder of any securities of the Company registration rights the terms of which are more favorable than the registration rights granted to Holders hereunder.

1.13 Procedure for Underwriter Cutbacks. In any circumstance in which all of the Registrable Securities and other shares of Common Stock of the Company with registration rights (the "Other Shares") requested to be included in a registration pursuant to Section 1.5 on behalf of Holders or Other Stockholders cannot be so included as a result of limitations of the aggregate number of shares of Registrable Securities and Other Shares that may be so included, the number of shares of Registrable Securities and Other Shares that may be so included shall be allocated among the Holders and Other Stockholders requesting inclusion of shares pro rata based upon the total number of Registrable Securities or Other Shares held by such Holders and Other Stockholders, respectively; *provided, however*, that such allocation shall not operate to reduce the aggregate number of Registrable Securities or Other Shares to be included in such registration if any Holder or Other Stockholder does not request inclusion of the maximum number of shares of Registrable Securities or Other Shares allocated to such Holder or Other Stockholder pursuant to the above-described procedure, in which case the remaining portion of his allocation shall be reallocated among those requesting Holders and Other Stockholders whose allocations did not satisfy their requests pro rata on the basis of total number of shares of Registrable Securities and Other Shares held by such Holders and Other Stockholders, and this procedure shall be repeated until all shares of Registrable Securities and Other Shares which may be included in the registration on behalf of the Holders and Other Stockholders have been so allocated. The Company shall not limit the number of shares of Registrable Securities to be included in a registration pursuant to Section 1.5 in order to include shares of stock issued to founders of the Company or to employees, officers, directors, or consultants pursuant to the Company's equity incentive plans. Notwithstanding the foregoing, the number of shares of Registrable Securities included in a registration pursuant to Section 1.5 of this Agreement shall not be reduced below twenty five percent (25%) of the securities included in such registration unless such offering is the IPO.

1.14 Standoff Agreement. Each Holder agrees in connection with the Company's IPO, upon request of the underwriters managing such IPO, not to sell, make any short sale of, loan, pledge or otherwise hypothecate or encumber, grant any option for the purchase of, or otherwise dispose of any Registrable Securities (other than those included in the registration) without the prior written consent of such underwriters, as the case may be, for such period of time (not to exceed 180 days, but subject to such extension(s) as may be required by the underwriters in order to publish research reports while complying with Rule 2711 of the National Association of Securities Dealers, Inc.) as may be requested by such managing underwriters; *provided* that all directors, officers and holders of one percent (1%) or more of the Company's outstanding capital stock are similarly bound; and *provided further* that any early release of any then-current or former officer or director or any holder of one percent (1%) or

more of the Company's outstanding capital stock from market standoff agreements similar to the foregoing is apportioned pro rata among all securityholders bound by such market standoff agreements.

1.15 Termination of Rights. The rights of any particular Holder to cause the Company to register securities under Sections 1.3, 1.4, and 1.5 shall terminate with respect to such Holder after the earlier of (i) the fourth (4th) anniversary of the consummation of an IPO in which all Preferred Stock is converted into Common Stock, (ii) with respect to any Holder, at such time after an IPO as Rule 144 or another similar exemption under the Securities Act is available for the sale of all of such Holder's shares during a three-month period without registration or (iii) upon termination of the Agreement as provided herein.

2. Right of First Refusal.

2.1 Right of First Refusal.

(a) Right of First Refusal. Subject to the terms and conditions contained in this Section 2.1, the Company hereby grants to each Investor who holds not less than 1,000,000 of the Shares or shares of Common Stock issuable upon conversion of the Shares (as adjusted for any stock splits, consolidations and the like) (each, a "Major Holder") the right of first refusal to purchase such Major Holder's Pro Rata Portion of any New Securities which the Company may, from time to time, propose to issue and sell.

(b) Notice of Right. In the event the Company proposes to undertake an issuance of New Securities, it shall give each Major Holder written notice of its intention, describing the type of New Securities and the price and terms upon which the Company proposes to issue the same. Each Major Holder shall have twenty (20) days from the date of delivery of any such notice to agree to purchase up to such Major Holder's Pro Rata Portion of such New Securities, for the price and upon the terms specified in the notice, by delivering written notice to the Company and stating therein the quantity of New Securities to be purchased.

(c) Right of Over-Allotment. In the event that the Major Holders fail to fully exercise the right of first refusal within such twenty- (20-) day period, each Major Holder fully exercising its right of first refusal may purchase, on a pro rata basis, the non-purchasing Major Holder's or Major Holders' Pro Rata Portion(s). The Company will promptly notify those Major Holders fully exercising their rights of first refusal, in writing, of the availability of additional New Securities, and each of the fully-exercising Major Holders shall have ten (10) days from the date of receipt of any such notice to agree to purchase up to such Major Holder's pro rata portion of such additional New Securities.

(d) Lapse and Reinstatement of Right. The Company shall have sixty (60) days following the twenty- (20-) day period described in Section 2.1(b) and the additional ten- (10-) day period described in Section 2.1(c) to sell or enter into an agreement (pursuant to which the sale of New Securities covered thereby shall be closed, if at all, within thirty (30) days from the date of said agreement) to sell the New Securities with respect to which the Major Holder's right of first refusal was not exercised, at a price and upon terms no more favorable to the purchasers of such securities than specified in the Company's notice. In the event the

Company has not sold the New Securities or entered into an agreement to sell the New Securities within said sixty- (60-) day period (or sold and issued New Securities in accordance with the foregoing within thirty (30) days from the date of said agreement), the Company shall not thereafter issue or sell any New Securities without first offering such securities to the Investors in the manner provided above.

2.2 Assignment of Right of First Refusal. The right of first refusal granted hereunder may not be assigned or transferred, except that: (i) such right is assignable by each Major Holder to a fund or entity managed by the same manager or managing member or general partner or management company, or to any wholly-owned subsidiary or parent of, or to any corporation or entity that is, within the meaning of the Securities Act, controlling, controlled by, or under common control with, any such Major Holder; and (ii) such right is assignable between and among any Major Holders.

2.3 Termination of Right of First Refusal. The right of first refusal granted under Section 2.1 of this Agreement shall expire upon the earlier of, and shall not be applicable to, (i) an IPO in which all Preferred Stock is converted into Common Stock, or (ii) a Liquidation (as defined in the Restated Certificate).

3. Affirmative Covenants of the Company. The Company hereby covenants and agrees, so long as any Investor holds Registrable Securities, as follows:

3.1 Financial Information. So long as an Investor is a holder of not less than 1,000,000 shares of Registrable Securities (as adjusted for any stock splits, consolidations and the like) the Company will furnish to the Investor the following reports:

(a) As soon as practicable after the end of each fiscal year, and in any event within one hundred twenty (120) days thereafter, audited consolidated balance sheets of the Company and its subsidiaries, if any, as of the end of such fiscal year, and consolidated statements of income and cash flows of the Company and its subsidiaries, if any, for such year, prepared in accordance with generally accepted accounting principles consistently applied and setting forth in each case in comparative form the figures for the previous fiscal year, all in reasonable detail and certified by independent public accountants of national standing selected by the Company;

(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 consolidated balance sheets of the Company and its subsidiaries, if any, as of the end of such quarterly period, and consolidated statements of income and cash flows of the Company and its subsidiaries, if any, for such quarterly period, prepared in accordance with generally accepted accounting principles consistently applied and setting forth in each case in comparative form the figures for the corresponding quarterly periods of the previous fiscal year and the figures projected by the Company's annual budget, subject to changes resulting from normal year-end audit adjustments, all in reasonable detail and certified by the principal financial or accounting officer of the Company, except such financial statements need not contain the notes required by generally accepted accounting principles;

(c) As soon as practicable after the end of each calendar month, and in any event within thirty (30) days thereafter, consolidated balance sheets of the Company and its subsidiaries, if any, as of the end of each calendar month setting forth in comparative form the results projected by the Company's annual budget, and consolidated statements of income and cash flow for such period and for the current fiscal year to date;

(d) As soon as practicable after the end of each fiscal quarter, 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 quarterly period, and the number of common shares issuable upon conversion or exercise of any outstanding securities convertible or exercisable for common shares and the exchange ratio or exercise price applicable thereto, all in sufficient detail as to permit the Investor to calculate its percentage equity ownership in the Company.

3.2 Operating Plan and Budget. So long as an Investor holds not less than 1,000,000 shares of Registrable Securities (as adjusted for any stock splits, consolidations, and the like), as soon as practicable upon approval or adoption by the Board, and in any event within thirty (30) days prior to the end of each fiscal year, the Company will furnish the Investor with the Company's budget and operating plan (including projected balance sheets and profit and loss and cash flow statements, forecasts of revenues, expenses, significant projected milestones and projected cash position on a month-to-month basis) for the upcoming fiscal year.

3.3 Inspection. So long as an Investor holds not less than 1,000,000 shares of Registrable Securities (as adjusted for any stock splits, consolidations, and the like), the Company shall permit the Investor, at such Investor's expense and upon reasonable notice given to the Company, to visit and inspect the Company's properties, to examine its books of account and other records (and make copies and take extracts therefrom), and to discuss the Company's affairs, finances and accounts with its officers, all at such reasonable times as may be requested by the Investor.

3.4 Stock Vesting. All stock and stock options issued to employees, directors, consultants and other service providers after the date of this Agreement will be subject to vesting at a rate of 25% one year after the vesting commencement date, with monthly vesting thereafter for the next thirty six (36) months, unless otherwise approved by the Board. Each agreement pursuant to which such stock or stock option is issued or granted shall include a repurchase option such that, upon termination of the employee, director, consultant or other service provider, as the case may be, whether such termination be with or without cause, the Company or its assignee (to the extent permissible under applicable securities laws) retains the option to repurchase any unvested shares held by such employee, director, consultant or other service provider at the price such employee, director, consultant or other service provider paid for the shares.

3.5 Key Man Life Insurance. If determined to be necessary or advisable by the Board after the Initial First Tranche Closing (as defined in the Series C Purchase Agreement), the Company shall use reasonable best efforts to secure a "key person" term life insurance policy from a financially sound and reputable insurer which names the Company as sole beneficiary, on such executives and on such terms, as are reasonably acceptable to the Company and the Investors.

3.6 Directors' & Officers' Liability. The Company shall use reasonable best efforts to maintain a policy or policies of directors' and officers' liability insurance ("D&O Insurance") on terms and conditions reasonably acceptable to the Company and the Investors. The Company shall keep such D&O Insurance in place so long as any of the Investors' designees serve on the Board, provided such insurance is available on commercially reasonable terms as determined by the Board. In addition, the Company's Certificate of Incorporation and Bylaws shall provide for (a) elimination of the liability of directors to the maximum extent permitted by law and (b) indemnification of directors for acts on behalf of the Company to the maximum extent permitted by law.

3.7 Board Committees. The Board will maintain Audit and Compensation Committees (the "Committees") composed of non-management directors, including at least two Preferred Directors. Each Committee shall consist of no more than three (3) directors. The director designated by the holders of the Series B Preferred Stock pursuant to Section 2.1 of the Voting Agreement shall be a member of the Compensation Committee.

3.8 Termination of Covenants. The covenants set forth in this Section 3 shall terminate and be of no further force or effect after the earlier of (i) the date on which the Company is required to file reports with the Commission pursuant to Section 13 or 15(d) of the Exchange Act and (ii) the occurrence of any of the events specified in Section 2.3 hereof.

3.9 Observer Rights. The Company covenants and agrees that each of (a) the Founders holding a majority in interest of the Founders' Stock, (b) ARCH Venture Fund VI, L.P. and its affiliates ("ARCH"), if it does not then have a representative on the Board, (c) Polaris Venture Partners V, L.P. and its affiliates ("Polaris"), if it does not then have a representative on the Board, (d) Venrock Associates V, L.P. and its affiliates ("Venrock"), if it does not then have a representative on the Board, (e) OVP Venture Partners VII, L.P. and its affiliates ("OVP"), if it does not then have a representative on the Board, (f) Hospira, Inc. and its affiliates ("Hospira"), (g) Genzyme Corporation and its affiliates ("Genzyme"), (h) Astellas Venture Fund I, L.P. and its affiliates ("Astellas") and (i) Takeda Ventures, Inc. and its affiliates ("TVI"), shall be entitled to designate one observer (each, an "Observer") who may be present at all meetings of the Board, including any telephonic meetings, and that the Company will give each such Observer copies of all notices, minutes, consents and other materials related to such meetings, whether financial or otherwise, by telecopy or by such other means as such notices are delivered to the members of the Board, not later than the earlier of (x) the same time notice is provided or delivered to the Board and (y) 24 hours prior to the time of such proposed meeting; *provided*, that each such Observer agrees to hold in confidence all information regarding the Company provided to such Observer acting in such capacity; and *provided, further*, that any such Observer may be excluded from any meeting or portion thereof and the Company reserves the right to withhold any information from such Observer if the Board of Directors determines in good faith that such withholding of information or exclusion is reasonably necessary (i) based upon the advice of the Company's legal counsel, to preserve the attorney-client privilege, (ii) in the event the Board of Directors intends to discuss or vote upon any circumstances or matters where there is a material actual or material potential conflict of interest between the Company and the

Investor(s) represented by such Observer or (iii) to comply with the terms and conditions of confidentiality agreements with third parties. The foregoing observation rights are contingent upon each Observer's entering into a confidentiality agreement with the Company that is reasonably acceptable to the Company. Such observation rights will terminate (a) with respect to any of ARCH, Polaris, Venrock and OVP, on an entity-by-entity basis, on the date upon which any such entity fails to purchase, in any issuance of New Securities by the Company, the lesser of (x) its Pro Rata Portion of such New Securities or (y) $2,000,000 worth of such New Securities; (b) with respect to any of Genzyme and Astellas, on the later to occur of (i) November 10, 2012 or (ii) on an entity-by-entity basis, the date upon which any such entity fails to purchase, in any issuance of New Securities by the Company, the lesser of (x) its Pro Rata Portion of such New Securities or (y) $2,000,000 worth of such New Securities; (c) with respect to Hospira, on the latest to occur of (i) November 10, 2012, (ii) the date upon which Hospira fails to purchase, in any issuance of New Securities by the Company, the lesser of (x) its Pro Rata Portion of such New Securities or (y) $2,000,000 worth of such New Securities or (iii) the date upon which Hospira no longer holds shares of capital stock of the Company representing at least five percent (5%) of the number of outstanding shares of capital stock of the Company, determined on a Fully Diluted Basis; and (d) with respect to TVI, on the later to occur of (i) March 30, 2014 and (ii) the date upon which TVI fails to purchase, in any issuance of New Securities by the Company, the lesser of (x) its Pro Rata Portion of such New Securities or (y) $2,000,000 worth of such New Securities. For purposes of this Section 3.9, "Fully Diluted Basis" shall mean, as of the date of determination, the sum of all outstanding shares of the Company's Common Stock, assuming the conversion, exercise or exchange of all convertible securities, preferred stock and all rights, options or warrants to subscribe for, purchase or otherwise acquire equity securities of the Company, where, for purposes of such determination, the maximum number of shares of the Company's Common Stock issuable upon the exercise, conversion or exchange of all such securities, shall be deemed to be outstanding.

3.10 Customary Expenses. Customary documented expenses incurred by directors in the course of business conducted on behalf of the Company, will be reimbursed by the Company.

3.11 Confidential Information and Invention Assignment Agreements. The Company shall require all officers, employees and consultants hired or otherwise retained after the date hereof to execute and deliver to the Company a customary confidentiality, non-solicitation and invention assignment agreement in a form acceptable to a majority in interest of the Investors or unanimously approved by the Board, which, in the case of all officers and other key employees, shall include a one-year post-separation non-competition agreement where permitted by applicable law, unless otherwise approved by all members of the Board or a majority in interest of the Investors.

3.12 Specific Board Votes. For so long as at least 1,000,000 shares of Preferred Stock (as adjusted for stock splits, combinations, reorganizations and the like) remain outstanding, the Company shall not, either directly or indirectly by amendment, merger, consolidation or otherwise, without first obtaining the approval (by vote or written consent as provided by law) of either (i) a majority of the Board, including at least two (2) directors who are not Preferred Directors or affiliates of any holder of Preferred Stock of the Company or (ii) all of the Preferred Directors:

(a) consummate any Liquidation;

(b) effect a merger or consolidation with or into a subsidiary corporation; or

(c) sell, license, encumber or dispose of all or substantially all of the Company's assets, technology or intellectual property (other than pursuant to equipment leases, lines of credit or other debt financing approved by the Board).

4. Miscellaneous.

4.1 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 State of California, without regard to conflict of law principles that would result in the application of any law other than the law of the State of California.

4.2 Successors and Assigns. Except as otherwise provided herein, the provisions hereof shall inure to the benefit of, and be binding upon, the successors, assigns, heirs, executors, and administrators of the parties hereto. Nothing in this Agreement, express or implied, is intended to confer upon any party other than the parties hereto or their respective successors and assigns any rights, remedies, obligations, or liabilities under or by reason of this Agreement, except as expressly provided by this Agreement.

4.3 Entire Agreement. This Agreement and the other documents delivered pursuant hereto constitute the full and entire understanding and agreement among the parties with regard to the subjects hereof and thereof. Subject to the provisions of Section 4.10 below, neither this Agreement nor any term hereof may be amended, waived, discharged or terminated other than by a written instrument signed by the party against whom enforcement of any such amendment, waiver, discharge or termination is sought, unless otherwise provided.

4.4 Notices. All notices and other communications required or permitted hereunder shall be in writing and shall be mailed by registered mail, certified mail (return receipt requested) or by internationally recognized express courier (*e.g.*, Federal Express), postage prepaid, or sent by fax or electronic mail or otherwise delivered by hand or by messenger addressed:

(a) If to an Investor, at the Investor's address, fax number or electronic mail address set forth beneath such Investor's signature hereto, or at such other address as such Investor shall have furnished to the Company;

(b) If to the Company, one copy should be sent to its address or fax number of record and addressed to the attention of the President, or at such other address or fax number as the Company shall have furnished to the parties hereto, with a copy to Kingsley L. Taft, Goodwin Procter LLP, 53 State Street, Boston, Massachusetts 02109-2802, (fax) 617-523-1231; and

(c) Each such notice shall for all purposes of this Agreement be treated as effective or having been given on the earliest to occur of the following:

(i) The date of personal delivery or delivery by messenger;

(ii) One (1) business day after transmission by fax or electronic mail, with confirmation of transmission and with copy by first class mail, postage paid;

(iii) One (1) business day after deposit with an internationally recognized express courier for United States deliveries, or three (3) business days after such deposit for deliveries outside of the United States; or

(iv) Three (3) business days after deposit in a regularly maintained receptacle for the deposit of the United Stated mail be registered or certified mail (return receipt requested) for United States deliveries.

4.5 Delays or Omissions. No delay or omission to exercise any right, power, or remedy accruing to any Investor upon any breach or default of the Company under this Agreement shall impair any such right, power, or remedy of such party, nor shall it be construed to be a waiver of any such breach or default, or an acquiescence therein, or of or in any similar breach or default thereafter occurring; nor shall any waiver of any single breach or default be deemed a waiver of any other breach or default theretofore or thereafter occurring. Any waiver, permit, consent, or approval of any kind or character on the part of any party of any breach or default under this Agreement, or any waiver on the part of any party of any provisions or conditions of this Agreement, must be in writing and shall be effective only to the extent specifically set forth in such writing or as provided in this Agreement. All remedies, either under this Agreement or by law or otherwise afforded to any party, shall be cumulative and not alternative.

4.6 Dispute Resolution Fees. If any action at law or in equity is necessary to enforce or interpret the terms of this Agreement, the prevailing party shall be entitled to reasonable attorney’s fees, costs, and disbursements in addition to any other relief to which such party may be entitled.

4.7 Counterparts. This Agreement may be executed in any number of counterparts and signatures may be delivered by facsimile, each of which may be executed by less than all parties, each of which shall be enforceable against the parties actually executing such counterparts, and all of which together shall constitute one instrument.

4.8 Severability. If any provision of this Agreement becomes or is declared by a court of competent jurisdiction to be illegal, unenforceable, or void, portions of such provision, or such provision in its entirety, to the extent necessary, shall be severed from this Agreement and the balance of this Agreement shall be enforceable in accordance with its terms.

4.9 Titles and Subtitles. The titles and subtitles used in this Agreement are used for convenience only and are not to be considered in construing or interpreting this Agreement.

4.10 Amendment and Waiver. Any provision of this Agreement may be amended or waived (either generally or in a particular instance and either retroactively or prospectively) with the written consent of the Company and an Investor or Investors holding, in the aggregate, more than fifty percent (50%) of the outstanding shares of the Registrable Securities held by the Investors; provided, that any amendment or waiver of the provisions of Section 3.12 or any increase in the number of directors of the Company other than in connection with a financing in which the Company issues shares of a new series of preferred stock shall require the written consent of an Investor or Investors holding, in the aggregate, more than sixty-five percent (65%) of the outstanding shares of the Registrable Securities held by the Investors; provided, further, that for the avoidance of doubt any increase in the number of directors whose votes are to be included in the number of director votes required for purposes of Section 3.12 in connection with a financing in which the Company issues shares of a new series of preferred stock shall not, in and of itself, be deemed to be an amendment or waiver of Section 3.12. Notwithstanding the foregoing, (i) no provision of this Agreement requiring greater than majority approval of an action may be amended or waived by less than the percentage vote required therein to approve such action and (ii) no provision of this Agreement may be amended or waived (a) with respect to any Investor without the written consent of such Investor, unless such amendment or waiver applies in the same fashion to all Investors holding the same series of Preferred Stock as such Investor and does not discriminate against any Investor vis-à-vis all other Investors holding the same series of Preferred Stock and (b) with respect to Investors holding a series of Preferred Stock, if such amendment or waiver adversely affects such series in a different and disproportionate manner than the other series of Preferred Stock, without the written consent of those Investors holding a majority of the then outstanding shares of such series of Preferred Stock held by all Investors; provided that for the avoidance of doubt the addition to this Agreement of any other series or class of capital stock with rights ranking junior, *pari passu* or senior to such series (and the holders thereof) shall not, in and of itself, be deemed to constitute an amendment or waiver that adversely affects such series; and provided further that a waiver of the provisions of Section 2 with respect to a particular transaction shall be deemed to apply to all Investors, notwithstanding the fact that certain Investors may nonetheless, by agreement with the Company, purchase securities in such transaction. Any amendment or waiver effected in accordance with this paragraph shall be binding upon each Investor, the Founders and the Company. Notwithstanding the foregoing, the consent of ARCH shall be required for any amendment of Section 3.9 of this Agreement that adversely affects ARCH; the consent of Polaris shall be required for any amendment of Section 3.9 of this Agreement that adversely affects Polaris; the consent of Venrock shall be required for any amendment of Section 3.9 of this Agreement that adversely affects Venrock; the consent of OVP shall be required for any amendment of Section 3.9 of this Agreement that adversely affects OVP; the consent of Hospira shall be required for any amendment of Section 3.9 of this Agreement that adversely

affects Hospira; the consent of Genzyme shall be required for any amendment of Section 3.9 of this Agreement that adversely affects Genzyme; the consent of Astellas shall be required for any amendment of Section 3.9 of this Agreement that adversely affects Astellas; the consent of TVI shall be required for any amendment of Section 3.9 of this Agreement that adversely affects TVI and the consent of the Founders holding a majority in interest of the Founders' Stock shall be required for any amendment of Section 3.9 of this Agreement that adversely affects the Founders.

4.11 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 or in accordance with a separate confidentiality agreement entered into by such Investor and the Company) any confidential information previously obtained from the Company or otherwise 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 4.11 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 4.11; (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.

4.12 Rights of Investors. Each party to this Agreement shall have the absolute right to exercise or refrain from exercising any right or rights that such party may have by reason of this Agreement, including, without limitation, the right to consent to the waiver or modification of any obligation under this Agreement, and such party shall not incur any liability to any other party or other holder of any securities of the Company as a result of exercising or refraining from exercising any such right or rights.

4.13 Aggregation of Stock. All shares of Preferred Stock and Common Stock of the Company held or acquired by affiliated entities or persons shall be aggregated for the purpose of determining the availability of any rights under this Agreement.

4.14 Acknowledgment. The Company acknowledges that the Investors are either in the business of venture capital investing or are corporations that engage in venture capital investing and therefore review the business plans and related proprietary information of many enterprises, including enterprises which may have products or services which compete directly or indirectly with those of the Company. Nothing in this Agreement shall preclude or in any way restrict the Investors or persons affiliated with the Investors from investing or

participating in any particular enterprise whether or not such enterprise has products or services which compete with those of the Company, nor shall anything in this Agreement require the Investors or persons affiliated with the Investors to disclose to the Company or its shareholders any information obtained in connection with such activities.

4.15 Additional Investors. Notwithstanding anything to the contrary contained herein, if the Company issues additional shares of Preferred Stock after the date hereof, any purchaser of such shares Preferred Stock may become a party to this Agreement by executing and delivering a joinder to this Agreement in a form acceptable to the Company, 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.

4.16 Amendment of Prior Agreement. The Prior Agreement is hereby amended and superseded in its entirety and restated herein. Such amendment and restatement is effective upon the execution of this Agreement by the Company and the parties required for an amendment pursuant to Section 4.10 of the Prior Agreement. Upon such execution, all provisions of, rights granted and covenants made in the Prior Agreement are hereby waived, released and superseded in their entirety by the provisions hereof and shall have no further force or effect.

[THIS SPACE LEFT BLANK INTENTIONALLY]

IN WITNESS WHEREOF, the parties have executed this Amended and Restated Investor Rights Agreement as of the date first above written.

COMPANY:

FATE THERAPEUTICS, INC.

By: /s/ Christian Weyer
Christian Weyer, M.D.
President and CEO

Address: 3535 General Atomics Court
Suite 200
San Diego, CA 92121

INVESTORS:

ARCH VENTURE FUND VI, L.P.

By: ARCH Venture Partners VI, L.P.
Its: General Partner
By: ARCH Venture Partners VI, LLC
Its: General Partner

/s/ Robert Nelsen
Managing Director

Address: c/o ARCH Venture Partners
8725 West Higgins Road, Suite 290
Chicago, IL 60631
Attn: Mark McDonnell
Fax: (773) 380-6606

SIGNATURE PAGE TO FATE THERAPEUTICS, INC.
AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT

INVESTORS:

POLARIS VENTURE PARTNERS V, L.P.

By: Polaris Venture Management Co. V, LLC
Its: General Partner

By: /s/ John Gannon
John Gannon
Attorney In Fact

Address:
1000 Winter Street, Suite 3350
Waltham, MA 02451

POLARIS VENTURE PARTNERS FOUNDERS' FUND V, L.P.

By: Polaris Venture Management Co. V, LLC
Its: General Partner

By: /s/ John Gannon
John Gannon
Attorney In Fact

Address:
1000 Winter Street, Suite 3350
Waltham, MA 02451

POLARIS VENTURE PARTNERS ENTREPRENEURS' FUND V, L.P.

By: Polaris Venture Management Co. V, LLC
Its: General Partner

By: /s/ John Gannon
John Gannon
Attorney In Fact

Address:
1000 Winter Street, Suite 3350
Waltham, MA 02451

POLARIS VENTURE PARTNERS SPECIAL FOUNDERS' FUND V, L.P.

By: Polaris Venture Management Co. V, LLC
Its: General Partner

By: /s/ John Gannon
John Gannon
Attorney In Fact

Address:
1000 Winter Street, Suite 3350
Waltham, MA 02451

INVESTORS:

VENROCK ASSOCIATES V, L.P.
By: its General Partner, Venrock Management V, LLC

VENROCK PARTNERS V, L.P.
By: its General Partner, Venrock Partners Management V, LLC

VENROCK ENTREPRENEURS FUND V, L.P.
By: its General Partner, VEF Management V, LLC

By: /s/ David L. Stepp
David L. Stepp
Authorized Signatory

Address:
Attn: David L. Stepp
3340 Hillview Avenue
Palo Alto, CA 94304
T. 650 475 3750
F. 650 561 9180

SIGNATURE PAGE TO FATE THERAPEUTICS, INC.
AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT

INVESTORS:

OVP VENTURE PARTNERS VII, L.P.
By: OVMC VII, L.L.C., its General Partner

By: /s/ Chad Waite
Managing Member

OVP VII ENTREPRENEURS FUND, L.P.
By: OVMC VII, L.L.C., its General Partner

By: /s/ Chad Waite
Managing Member

Address:
Attn: Bill Funcannon
1010 Market Street,
Kirkland, WA98033
Fax: (425) 889-0152

SIGNATURE PAGE TO FATE THERAPEUTICS, INC.
AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT

INVESTORS:

GENZYME CORPORATION

By: /s/ Bernard Davitian

Name: Bernard Davitian

Title: VP, BD Licensing and Structured Investments

Address:

SIGNATURE PAGE TO FATE THERAPEUTICS, INC.
AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT

INVESTORS:

ASTELLAS VENTURE FUND I, L.P.

By: Astellas Venture Management LLC

Its: General Partner

By: /s/ Sakae Asanuma

Name: Sakae Asanuma

Its: President and CEO

Address:

2882 Sand Hill Road, Suite 121
Menlo Park, CA 94025
Attn: Sakae Asunama

SIGNATURE PAGE TO FATE THERAPEUTICS, INC.
AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT

INVESTORS:

TAKEDA VENTURES, INC.

By: /s/ G.R. Martin

Name: G.R. Martin
(print)

Title: President and CEO

Address:
435 Tasso St. Suite 300
Palo Alto, CA 94301

SIGNATURE PAGE TO FATE THERAPEUTICS, INC.
AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT

INVESTORS:

THE BOARD OF TRUSTEES OF THE LELAND STANFORD JUNIOR UNIVERSITY (PVF)

By: /s/ Martina Poquet
Name: Martina Poquet
Title: Managing Director—Separate Investments

Address:

Stanford Management Company
635 Knight Way
Stanford, CA 94305-7297
Phone: 650-721-1822
Fax: 650-566-8168
Email: jsbl@stanford.edu
direct@smc.stanford.edu

SIGNATURE PAGE TO FATE THERAPEUTICS, INC.
AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT

FOUNDERS:

SCOTT WOLCHKO

/s/ Scott Wolchko
Signature

Address:

Fax:

JOHN D. MENDLEIN

/s/ John D. Mendlein
Signature

Address:

Fax:

SIGNATURE PAGE TO FATE THERAPEUTICS, INC.
AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT

EXHIBIT A

SCHEDULE OF INVESTORS

Alexandria Equities, LLC
ARCH Venture Fund VI, L.P.
Polaris Venture Partners V, L.P.
Polaris Venture Partners Entrepreneurs' Fund V, L.P.
Polaris Venture Partners Founders' Fund V, L.P.
Polaris Venture Partners Special Founders' Fund V, L.P.
Venrock Associates V, L.P.
Venrock Partners V, L.P.
Venrock Entrepreneurs Fund V, L.P.
OVP Venture Partners VII, L.P.
OVP VII Entrepreneurs Fund, L.P.
Norman Selby
Thomas St. John
Jonathan Kraft
Jonathan A. Kraft LLC
KPC Venture Capital LLC
Silicon Valley Bank
Hospira, Inc.
Genzyme Corporation
Astellas Venture Fund I, L.P.
Takeda Ventures, Inc.
The Board of Trustees of the Leland Stanford Junior University (PVF)
Stuart H. Orkin, M.D.

EXHIBIT B

SCHEDULE OF FOUNDERS

Philip Beachy
Sheng Ding
Randall Moon
David Scadden
Leonard Zon
Alexander Rives
Laurence Reid
James Vath
Francine Farouz
Thomas St. John
Scott Wolchko
Paul A. Grayson
John D. Mendlein

EXHIBIT 21.1

SUBSIDIARIES OF REGISTRANT

Name	State or Other Jurisdiction of Incorporation or Organization	Names Under Which Subsidiary Does Business
Fate Therapeutics (UK) Ltd.	United Kingdom	Fate Therapeutics (UK) Ltd.
Fate Therapeutics (Canada) Inc.	Canada	Fate Therapeutics (Canada) Inc.
Destin Therapeutics (Canada) Inc.	Canada	Destin Therapeutics (Canada) Inc.